### Climate Change Expert Group

Paper No.2022(1)

## Translating outputs to outcomes under the global stocktake of the Paris Agreement

Sirini Jeudy-Hugo (OECD) and Leon Charles (External consultant)



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# Foreword

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# Acknowledgments

Sirini Jeudy-Hugo and Leon Charles would like to thank Zofia Kunysz (OECD) for her background research and substantive input to this paper, and OECD colleagues Jane Ellis and Federico De Lorenzo, and IEA colleagues Sara Moarif and Luca Lo Re for their comments on earlier drafts of this paper. The authors would also like to thank facilitators, presenters and attendees at the March 2022 CCXG Global Forum on the Environment and Climate Change, whose views and feedback helped shape the final document.

The CCXG Secretariat would like to thank Australia (Department of Foreign Affairs and Trade), Belgium (Federal Public Service Health, Food Chain Safety, Environment), Canada (Environment and Climate Change Canada), the European Commission, Finland (Ministry of the Environment), Germany (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety), Italy (Ministry for the Environment and Protection of Land and Sea), Japan (Ministry of the Environment), the Netherlands (Ministry of Economic Affairs and Climate Policy), New Zealand (Ministry for the Environment), Norway (Ministry of Climate and Environment), Sweden (Swedish Environmental Protection Agency), Switzerland (Federal Office for the Environment), United Kingdom (Cabinet Office) and the United States (Department of State) for their direct funding of the CCXG in 2021/2022, and Costa Rica (Ministry of Environment and Energy), the OECD and IEA for their in-kind support of the CCXG in 2021/2022.

Questions and comments should be sent to:

Sirini Jeudy-Hugo (OECD) OECD Environment Directorate 46 Quai Alphonse le Gallo 92100 Boulogne-Billancourt France Email: <u>Sirini Jeudy-Hugo@oecd.org</u>

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# Abstract

This paper explores modalities, enablers, and political moments that could help to translate the outputs of the global stocktake (GST) into an outcome that informs and enhances national and international actions as intended in the Paris Agreement. How to move from the collective outputs of the GST to desired outcomes is critical but not straightforward. Drawing on lessons learnt from previous international assessment and review processes under the UNFCCC and beyond, this paper sets out insights on modalities, outputs and enabling factors that could help ensure the GST leads to action on the ground. The paper concludes that achieving the outcomes of the GST requires a well-designed process that effectively engages Parties and non-Party stakeholders in separate but sequenced technical and political discussion tracks. The paper also finds that specific, actionable outputs that target different actors can facilitate subsequent follow-up. The paper identifies different enabling factors that could support the translation of GST outputs formulated at the collective level into national processes to update and enhance actions and support. It also highlights the importance of leveraging different political moments and building linkages with parallel processes, both within and outside the UNFCCC context, to maintain momentum on the GST and ensure operational action follows over time so that collective efforts are in line with the long-term goals of the Paris Agreement.

#### JEL classifications: Q54, Q56, Q58, F53

**Keywords**: Climate change, Paris Agreement, Global stocktake, Outputs, Outcomes, NDCs, LT-LEDS, UNFCCC



Le présent document étudie les modalités, les facteurs propices et les moments politiques clés susceptibles d'aider à transformer les livrables du bilan mondial en un résultat tangible qui informe et renforce les mesures prises aux niveaux national et international, comme prévu dans l'Accord de Paris. Il est primordial, mais néanmoins complexe, de déterminer comment passer des livrables collectifs du bilan mondial aux résultats souhaités. S'appuyant sur les leçons tirées des précédents exercices relevant du processus international d'évaluation et d'examen dans le cadre de la CCNUCC et au-delà, ce document élucide les modalités, les livrables et les facteurs propices pour que le bilan mondial se traduise en actions sur le terrain. Il conclut que les résultats attendus du bilan mondial nécessitent un processus bien concu qui engage les Parties et les acteurs non-Parties à la CCNUCC dans des cycles de discussions techniques et politiques distincts, mais suivant un ordre établi. Le document établit également que des livrables spécifiques, concrets, ciblant différents acteurs peuvent faciliter le suivi ultérieur. Il recense plusieurs facteurs propices qui pourraient accompagner la traduction des livrables du bilan mondial formulés au niveau collectif en processus nationaux, en vue de l'actualisation et du renforcement des mesures et de l'appui. Il souligne l'importance de tirer parti des moments politiques clés et créer des liens avec des processus parallèles, dans le contexte de la CCNUCC et en dehors. Cela permettra de maintenir la dynamique du bilan mondial et assurer que l'action opérationnelle suive sur la durée, de sorte que les efforts collectifs soient en phase avec les buts à long terme de l'Accord de Paris.

Classifications JEL: Q54, Q56, Q58, F53

**Mots-clés** : Changement climatique, Accord de Paris, Bilan mondial, Résultats, Livrables, CDN, Stratégies à long terme de développement à faible émission, CCNUCC

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## **List of Acronyms**

- APEC Asia-Pacific Economic Co-operation
- BTR Biennial Transparency Reports
- BUR Biennial Update Report
- CBIT Capacity Building Initiative for Transparency
- CCXG Climate Change Expert Group
- CMA Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
- COP Conference of the Parties
- EU European Union
- FAO Food and Agriculture Organisation
- FPR First Periodic Review
- FSV Facilitative Sharing of Views
- G7 Group of Seven
- G20 Group of Twenty
- GST Global stocktake
- HLPF High-level Political Forum on Sustainable Development
- ICAO International Civil Aviation Organisation
- IEA International Energy Agency
- IMF International Monetary Fund
- IMO International Maritime Organisation
- IPCC Intergovernmental Panel on Climate Change
- JCG Joint contact group of the SBSTA and the SBI on the global stocktake
- LDCs Least Developed Countries
- LT-LEDS Long-Term Low Emission Development Strategies

- MDB Multilateral development bank
- MEF Major Economies Forum
- MOP Meeting of the Parties to the Montreal Protocol
- NDCs Nationally Determined Contributions
- OECD Organisation for Economic Co-Operation and Development
- PCCB Paris Committee on Capacity-building
- RTEMs Regional Technical Expert Meetings
  - SAP Scientific Assessment Panel
  - SBI Subsidiary Body for Implementation
- SBSTA Subsidiary Body for Scientific and Technological Advice
- SDGs Sustainable Development Goals
- SED Structured Expert Dialogue
- SIDS Small Island Developing States
- TD Technical Dialogue
- TEAP Technology and Economic Assessment Panel
- TEC Technology Executive Committee
- TEM Technical Expert Meeting
- TEM-A Technical Examination Meeting on Adaptation
- TEM-M Technical Examination Meeting on Mitigation
  - TEP Technical Examination Process
- TEP-A Technical Examination Process on Adaptation
- TEP-M Technical Examination Process on Mitigation
- UNDP United Nations Development Programme
- UNECLAC United Nations Economic Commission for Latin America and the Caribbean
- UNESCAP United Nations Economic and Social Commission for Asia and the Pacific
- UNFCCC United Nations Framework Convention on Climate Change
  - UNGA United Nations General Assembly
  - UNSG United Nations Secretary-General
  - VNR Voluntary National Reports

## **Executive summary**

Several reports from within the UNFCCC processes and beyond point to the gap between the goals of the Paris Agreement and current collective efforts to respond to the threat of climate change. This gap was reiterated in the Glasgow Climate Pact, which stressed the urgency of enhancing ambition and action on climate mitigation, adaptation and finance to meet the long-term goals of the Paris Agreement.

Against this backdrop, the first global stocktake (GST1) to assess collective progress in implementing the Paris Agreement was launched at COP26 in November 2021 and is expected to conclude at COP28 in November 2023. Covering different thematic areas and taking into account equity and the best available science, the GST has the potential to help accelerate progress and trigger more ambitious national and international action in line with the goals of the Paris Agreement.

To make the most of the opportunity offered by the GST it would be useful to look ahead to the intended outcome of the process and how to get there. A successful GST would be one that achieves its agreed outcome set out in the Paris Agreement to "inform Parties in updating and enhancing, in a nationally determined manner, their actions and support..., as well as enhancing international co-operation for climate action". This intended outcome of the process could be linked to further tangible and intangible outcomes, such as providing guidance to Parties on aligning Nationally Determined Contributions (NDCs) with Long-Term Low Emission Development Strategies (LT-LEDS), and increasing awareness of opportunities to address the gaps in implementing the goals of the Paris Agreement. How to reach the desired outcomes of the GST is critical but not straightforward.

This paper explores modalities, national enablers, and political levers that could help to translate the outputs of the GST process into desired outcomes, building on lessons learnt from previous international assessment and review processes under the UNFCCC and beyond. Unpacking the question of how to translate the outputs of the GST to outcomes could facilitate focused discussions, guide the modalities of the process, clarify expectations, and help to ensure the GST meets its aims and can support the goals of the Paris Agreement.

#### Designing a GST process to support subsequent action

Modalities of the GST and how the process is organised can influence its success. Previous experiences with international assessment and review processes highlight different modalities that facilitate subsequent operational action. These modalities relate to the engagement of Parties and non-Party stakeholders throughout the process, the role played by science in informing discussions and decision-making, the structure, format and sequencing of technical and political discussions, and the incorporation of learning-by-doing throughout the process.

Effectively engaging all Parties in the process could help to strengthen ownership of GST outputs and could facilitate subsequent follow-up by Parties in informing updates to national actions and support. Similarly, active engagement by non-Party stakeholders throughout the process could strengthen ownership and facilitate subsequent follow-up to enhance international co-operation for climate action.

If discussions in the GST make a clear link between the review of policy progress and the latest available science on the pace and scale of emission reductions needed to meet the goals of the Paris Agreement, this could help to improve understanding of climate pathways (e.g. to net-zero emissions) and climate impacts at different time scales. This improved understanding could in turn provide guidance to Parties in developing LT-LEDS and in aligning these with their NDCs.

The GST includes both a technical and a political track of discussions. Keeping these two tracks separate could help to ensure the integrity of the technical recommendations coming out of the process. At the same time, it is important to sequence the two tracks so that the findings of the technical discussions feed into strong political recommendations that can serve as a trigger for action. The format of the technical and political discussions, e.g. how discussions are structured, is also important as this can facilitate efficient exchanges between participants and could affect the formulation of subsequent outputs.

The ability to incorporate learning is another important factor for maintaining the effectiveness of the GST process over time. As the first stocktaking exercise under the Paris Agreement, assessing the outcomes and lessons learnt from the GST1 experience can play an important role in setting the foundation for GST2 and subsequent stocktaking processes under the Paris Agreement.

#### Formulating GST outputs to facilitate follow-up

Reaching the intended outcome of the GST will be influenced by the package of outputs produced, who they are targeted at, and whether the outputs are followed up over time. As the GST is an exercise to assess collective progress, outputs will not be country-specific nor policy prescriptive. Nonetheless, the focus, clarity and format of GST outputs could facilitate subsequent follow-up by different actors.

To improve the signalling function of the GST in informing Parties' updates of national actions and enhancing international co-operation, the final package of outputs is important. This paper identifies different elements which could encourage Parties and non-Party stakeholders to consider GST recommendations in their work going forward and provide a future marker against which to assess GST1. Potential elements of the final package of outputs include:

- Technical information e.g. technical annexes setting out mitigation, adaptation, means of implementation and support opportunities in key sectors or thematic areas, linking to on-going initiatives such as the Breakthrough Agenda, the Climate Action Pathways of the Marrakech Partnership, or sectoral initiatives launched at COP26.
- Recommendations of possible follow-up actions by Parties, UNFCCC processes and relevant bodies - e.g. Parties could indicate how subsequent NDCs have been informed by GST outcomes; relevant bodies such as the Paris Committee on Capacity-building (PCCB), could be directed towards supporting implementation of GST recommendations; technical expert reviews of biennial transparency reports (BTRs) could consider if information has been provided on how the GST has been taken into account; new work programmes on mitigation and adaptation could be designed to complement the GST and potentially carry forward GST1 recommendations post-2023; the UNFCCC secretariat could prepare a report on lessons learnt from GST1 to inform GST2.
- Recommendations of possible follow-up actions by non-Party stakeholders e.g. Regional Climate Weeks could include sessions on the GST during the process and after it has been concluded; non-Party stakeholders could incorporate GST outputs in their work, e.g. to support NDC planning and implementation processes or to take forward relevant sectoral initiatives.

The elements of the final package of GST outputs outlined above target different actors and cover different timelines. Some elements could take place during the GST to feed into the process (e.g. via complementary activities in new work programmes on mitigation and adaptation or via discussions during Regional Climate Weeks), while others could take place after the GST has concluded, through processes within the UNFCCC (e.g. via technical expert reviews of BTRs) or outside (e.g. via non-Party stakeholder initiatives on key sectoral pathways).

#### Enablers to translate GST outputs into national action

Translating GST outputs formulated at the collective level into outcomes that can inform Parties in updating and enhancing national action is not automatic or straightforward and there is no guidance on how this could be done. Previous experiences illustrate how UNFCCC mandates are not automatically incorporated into national policies and programming. For example, despite needing to submit new or updated NDCs before COP26, several Parties (including many G20 countries) did not do so.

The take-up of international guidance and recommendations in national policies and processes depends on different contextual factors, such as national political commitment and domestic enabling environments. Various enabling factors, including institutional setup and capacities, ambitious NDC commitments, and follow-up processes under the UNFCCC, could facilitate the translation of collective GST outputs into national action. Such enabling factors could be explored in the 'Consideration of outputs' component of the GST as part of a discussion on facilitating achievement of outcomes.

Dedicated support to assist countries in strengthening domestic enabling environments could help to facilitate the translation of GST outputs into outcomes at the national level, taking into account national circumstances and starting points. Such support could be channelled through a dedicated window in existing facilities, bodies and programmes or by encouraging existing donors to focus their support on implementing GST recommendations in countries.

Mechanisms providing a direct link between the GST process and national processes could also facilitate the translation of GST outputs into national efforts. Some Parties have established mechanisms to take the outcomes of the GST into account in domestic processes. For example, in the EU the process of setting and assessing progress towards climate mitigation targets is explicitly linked to the GST process. Similarly, in Fiji, there are provisions in law to communicate new NDCs informed by the GST every five years, while in Luxembourg revisions to the national energy and climate plan are to be made in line with the GST.

#### Leveraging political moments to maintain attention on the GST

Leveraging "political moments" and building linkages with parallel processes, within and outside the UNFCCC context, can help to maintain attention and pressure around the GST to ensure operational action follows over time. Within the UNFCCC process, activities under new work programmes on mitigation and adaptation could be designed to feed into the GST process, and annual high-level ministerial round tables on pre-2030 ambition could be structured to carry forward GST1 recommendations post-2023.

Political moments could also be leveraged outside the UNFCCC to help maintain attention on the GST. For example, institutions like the UN General Assembly, and multilateral fora such as the G20, G7, MEF, and regional alliances could reiterate GST outcomes and follow-up with members on taking forward GST recommendations. Efforts to implement GST recommendations could also be supported and facilitated by the financial mechanism of the UNFCCC as well as by global organisations like the IMF, the World Bank and the MDBs. A global public awareness campaign that spotlights contributions of countries that take the lead in operationalising GST recommendations could further help to maintain political attention on the GST.

The GST provides a unique opportunity to engage a broader audience beyond the UNFCCC process and could help to structure engagement and discussions on climate action in an impactful way to accelerate progress towards the goals of the Paris Agreement. Realising this potential requires a well-designed process that effectively engages Parties and non-Party stakeholders; specific, actionable outputs targeted at different actors; and various enabling factors to facilitate follow-up at the national level. There is also a need to leverage and co-ordinate with parallel processes and political moments within and outside the UNFCCC process to ensure subsequent operational action in line with the goals of the Paris Agreement.

## 1. Introduction

The global stocktake (GST) is an essential feature underpinning the Paris Agreement. It provides a regular assessment of collective progress towards the long-term goals of the Paris Agreement with the intention to inform subsequent updates of national actions and enhance international co-operation for climate action. The first stocktake (GST1) started at COP26 in 2021 and is expected to conclude at COP28 in 2023. Covering different thematic areas and taking into account equity and the best available science, the GST process has the potential to help accelerate progress and trigger more ambitious action towards the goals of the Paris Agreement.

How to move from the collective outputs of the GST to the agreed outcome of informing Parties in updating and enhancing their national actions, as well as enhancing international co-operation for climate action, is critical but currently unclear. Unpacking the question of how to translate the outputs of the GST to outcomes could have many benefits. These include helping to guide the modalities of the process, clarify expectations, facilitate focused discussions, and help to ensure the GST meets its aims as well as the aims of the Paris Agreement.

This paper explores modalities, enablers, and "political moments" that could help to translate the output of the GST into an outcome that informs and enhances the ambition of national and international actions. The analysis builds on lessons learnt from previous international assessment and review processes under the UNFCCC (Technical Examination Process; Talanoa Dialogue; First Periodic Review; International Consultation and Analysis) and beyond (Review processes under the Montreal Protocol; UN High-Level Political Forum).

This paper is structured as follows: section 2. provides a brief background of the GST process and some key issues relevant to GST outcomes. Section 3. explores modalities in the GST process that could facilitate the translation of outputs to outcomes, building on lessons learnt from previous international assessment and review processes. Section 4. sets out external and domestic enabling factors that could help to translate the output of the GST into national action, building on lessons learnt from experiences in developing and updating nationally determined contributions (NDCs). Section 5. explores the political moments that could help to maintain attention on the GST and facilitate follow-up by Parties and non-Party stakeholders over time. Finally, section 6. provides a synthesis of key findings and conclusions.

## 2. Context and overview

#### 2.1. Understanding the modalities and timeline of the GST

The Paris Agreement established the GST as a periodic mechanism "to assess the collective progress towards achieving the purpose of [the] Agreement and its long-term goals", in its Article 14.1 (UNFCCC, 2016<sub>[1]</sub>). The modalities of the GST are set out in Decision 19/CMA.1. The process is meant to be a comprehensive exercise covering the thematic areas of mitigation, adaptation, means of implementation and support as set out in the Paris Agreement. Decision 19/CMA.1 added that the GST process may also take into account the consequences and impacts of response measures, and efforts to avert, minimise and address loss and damage as appropriate (UNFCCC, 2018<sub>[2]</sub>). The GST process is meant to be facilitative, i.e. non-prescriptive. Equity and the best available science are to be taken into account in a cross-cutting manner throughout the process. For key concepts in the GST context as defined in this paper, see Box 2.1.

#### Box 2.1. Defining GST concepts used in this paper

**Components:** Refers to the three components of the GST as set out in Decision 19/CMA.1, i.e. 'Information collection and preparation', 'Technical assessment', 'Consideration of outputs'.

**Modalities:** Refers to the ways in which the GST process could be organised, this includes the format of the process, the interaction/linkages between different components of the process, the timing and duration of activities within the process, linkages with non-Party stakeholders and links with processes both within and outside the UNFCCC.

Inputs: Refers to the sources and types of information used to inform the GST process.

**Outputs:** Refers to the different elements produced by the GST process. Outputs could be technical (i.e. synthesis report of the 'Technical assessment' component) or political (i.e. political declaration, COP decision, high-level events).

**Outcomes:** Refers to the effects of the work carried out under the GST process. Outcomes can be obtained over the medium/long-term and tend to focus on changes in behaviour resulting from the process. Outcomes can include intangible ("soft") effects such as raising awareness among non-Party stakeholders, as well as tangible ("hard") effects, such as Parties' efforts to strengthen their NDCs informed by the outputs of the GST.

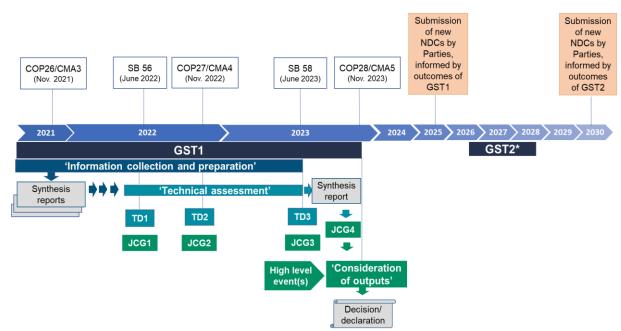
**Political moments:** Refers to political events and processes that can be used to build or maintain political attention on the GST. For example, this could include high-level events such as ministerial meetings and political processes, such as the Group of 7 (G7), Group of 20 (G20), Major Economies Forum (MEF), High-level Political Forum (HLPF), and Asia-Pacific Economic Co-operation (APEC).

Source: Authors.

COP26 marked the start of the first GST process (GST1) which is expected to conclude at COP28 in November 2023. This stocktaking exercise is to be repeated every five years, taking into account lessons

learned (UNFCCC, 2018<sub>[2]</sub>). The GST cycle is set to conclude two years before the subsequent round of NDC submissions. In this way, the outputs and outcomes of GST1 (2021-23) can inform national processes to update NDCs by 2025, the outputs and outcomes from GST2 (expected to conclude in 2028) can inform national processes to update NDCs by 2030, and so on (see Figure 2.1). If the timeline for submitting new or updated NDCs is compressed as suggested in the Glasgow Climate Pact (UNFCCC, 2021<sub>[3]</sub>), certain outputs under the GST process may not be available in time to inform relevant national processes.

The GST process is structured around three **components** – 'Information collection and preparation', 'Technical assessment' and 'Consideration of outputs'. This paper focuses on the latter two components, in particular how they influence the intended outcomes of the GST. Figure 2.1 provides an illustrative timeline of the GST process, including the three components of GST1.



#### Figure 2.1. Timeline of GST

Note:

\* The start date of GST2 has not yet been decided. GST2 is expected to end in 2028, five years after GST1.

TD: technical dialogue

JCG: joint contact group of the SBSTA and the SBI on the global stocktake

NDCs: Nationally Determined Contributions

Source: Authors based on (UNFCCC, n.d.[4]) (European Capacity Building Initiative, 2020[5])

Although a Party-driven process, the GST is to be conducted in a transparent, inclusive manner, with the participation of non-Party Stakeholders (UNFCCC, 2018<sub>[2]</sub>). The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) has overall responsibility for conducting the GST. The CMA is to be assisted by a joint contact group (JCG) of the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI) on the GST. The JCG is to be supported by an "open, inclusive, transparent and facilitative" technical dialogue between Parties and experts, relevant constituted bodies, forums and other institutional arrangements under the Paris

Agreement and/or the Convention<sup>1</sup> (UNFCCC, 2018<sub>[2]</sub>). The high-level champions are to support the effective participation of non-Party stakeholders in the GST process (UNFCCC, 2021<sub>[3]</sub>). Further detail on the modalities of non-Party stakeholder participation in GST1 is expected to become clearer as the process unfolds.

#### 2.2. Inputs, outputs and outcomes of the GST

The Paris Agreement identified initial sources of **input** to be taken into account in the GST, including adaptation communications (Article 14c), information provided on climate finance (Article 9.6), technology development and transfer (Article 10.6), and under the Enhanced Transparency Framework (Article 13.5 and Article 13.6). Further non-exhaustive lists of sources and types of input for the GST are identified in Decision 19/CMA.1 (UNFCCC, 2018<sub>[2]</sub>). In addition, at COP26, the SBSTA agreed further sources and types of information will also serve as a basis for GST1 (UNFCCC, 2021<sub>[6]</sub>).

The broad content of **outputs** envisaged under each component of the GST are set out in Decision 19/CMA.1. The outputs "should summarise opportunities and challenges for enhancing action and support in the light of equity and the best available science, as well as lessons learned and good practices"; ... "assess collective progress, have no individual Party focus, and include non-policy prescriptive consideration of collective progress" (UNFCCC, 2018<sub>[2]</sub>). Further detail on the format and details of different outputs of GST1 is expected to become clearer as the process unfolds.

The Paris Agreement sets out the agreed **outcome** of the GST which "shall inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the relevant provisions of this Agreement, as well as in enhancing international co-operation for climate action" (Article 14.3). This intention is reiterated in Article 4.9 of the Paris Agreement which states Parties' NDCs are to "be informed by the outcomes of the global stocktake" (UNFCCC, 2016[1]).

#### 2.3. Links and potential overlaps with other processes

Given the scope and ambition of the GST, some of its envisaged outputs could have links and potential overlaps with other relevant on-going/upcoming processes, including the Second Periodic Review and Structured Expert Dialogue, which runs from 2020-2022, and new work streams, processes and outputs launched at COP26. In particular, some newly established mechanisms under the Glasgow Climate Pact (UNFCCC, 2021<sub>[3]</sub>) could inform processes under the GST, e.g. annual updates by the secretariat to the NDC synthesis report and the secretariat's synthesis report on Long-Term Low Emission Development Strategies (LT-LEDS) by COP27. Other processes could potentially overlap with some GST outputs, e.g. annual high-level ministerial round table on pre-2030 ambition starting at COP27, world leaders event on ambition to 2030 convened by the UN Secretary General in 2023.

In certain cases, explicit links between parallel processes and the GST are envisaged in official documents. However "the lines between the cycles, and the information feeding into one cycle as compared to the next, are blurred" (Rajamani, 2021<sub>[7]</sub>). For example, on mitigation, although the new "work programme to urgently scale up mitigation ambition and implementation" established at COP26 is meant to complement the GST (para. 27) (UNFCCC, 2021<sub>[3]</sub>), it is currently unclear how this would interact with the GST process.

<sup>&</sup>lt;sup>1</sup> At the time of adoption of Decision 19/CMA.1, constituted bodies and forums included: the Adaptation Committee, the Least Developed Country Expert Group, the Technology Executive Committee, the Standing Committee on Finance, the Paris Committee on Capacity-building, the Executive Committee of the Warsaw International Mechanism for Loss and Damage associated with Climate Change Impacts, the Consultative Group of Experts, the Forum on the impact of the implementation of response measures, and the Local Communities and Indigenous Peoples Platform Facilitative Working Group.

Similarly, the two-year Glasgow–Sharm el-Sheikh work programme on the global goal on adaptation (GGA) (UNFCCC, 2021<sub>[8]</sub>) launched at COP26 is expected to contribute to the GST, by reviewing overall progress made in achieving the GGA to inform the first and subsequent GSTs (para. 7c). However, the work programme's envisaged objectives to enhance adaptation action and support could overlap with the GST. Moreover, the links between the new work programme on GGA, such as the four workshops each year, annual reports, and the GST process are as yet unclear.

As the COP Presidency and UNFCCC secretariat prepare activities under the new work programmes on mitigation and adaptation, they could design them in such a way as to optimise and complement the GST process. For example, activities in the work programme on mitigation could complement the GST process by providing a parallel forum for more in-depth discussions on certain issues (e.g. on sector-specific emission trends, mitigation potentials, technologies, investment patterns, policy options and best practices) which could in turn inform the 'Consideration of outputs' component of the GST and potentially translated into targeted political recommendations. Integrating activities under the new work programmes into the GST could provide further impetus to these parallel processes, as their findings could become immediately useful in informing the preparation of subsequent NDCs. Furthermore, if the new work programmes are extended beyond their envisaged timeframe, they could become a platform to carry forward the outcomes of the GST in the 2024-25 period. GST outputs could inform future activities under the work programmes similar to how work under the Technical Examination Process (TEP) process on Adaptation informed subsequent work of the Adaptation Committee (UNFCCC, 2020[9]).

# 3. Modalities to translate outputs to outcomes in the GST process

#### 3.1. Unpacking the outputs and outcomes of the GST

Decision 19/CMA.1 outlines a mix of technical and political outputs across the three components of the GST (see Table 3.1). The format and content of some of these outputs, including their level of aggregation or disaggregation, have not yet been finalised. Different types of outputs can play different roles depending on the intended audience and purpose. For example, some outputs are designed to inform high-level, political decision-making (e.g. recommendations to policymakers, key messages, considerations for Parties to take into account). Other outputs (e.g. technical summaries, synthesis reports) are designed for a more technical audience and can help to inform the work of experts, negotiators and researchers among others.

There are advantages and disadvantages to different types of outputs. Outputs that require consensusbased decision-making such as CMA decisions or political declarations command greater legitimacy among Parties and can provide a strong signal of the overall direction of travel. However, such outputs may not lend themselves to providing concrete guidance on how to get there as the level of detail provided may be limited. Such outputs could be complemented by other types of outputs that provide more detailed guidance targeted at different actors, e.g. technical annexes that identify specific good practices and solutions in key sectors (Rajamani, 2021<sub>[7]</sub>).

#### Table 3.1. Overview of GST1 outputs outlined in Decision 19/CMA.1

Component	Format	Expected timeline*	Content	Responsible body
Information collection and preparation	Synthesis report on the state of GHG emissions and mitigation efforts	March 2022	GHG emissions by sources and removals by sinks and mitigation efforts by Parties, incl. information referred to in A13.7a, A4 (para.7, 15, 19) of the PA	Secretariat (+ Co-facilitators)
	Synthesis report on the state of adaptation efforts	April 2022	Adaptation efforts, support, experience and priorities, incl. information referred to in A7 (paras. 2, 10, 11,14) and reports referred to in A13.8 of the PA	Secretariat (+ Co-facilitators)
	Synthesis report on the overall effect of NDCs	March 2022	Overall effect of NDCs and overall progress made by Parties towards implementation of their NDCs, incl. information referred to in A13.7(b) of the PA	Secretariat (+ Co-facilitators)
	Synthesis report on finance flows	April 2022	Finance flows (incl. information referred to in A2.1(c)), means of implementation and support, and mobilisation and provision of support (incl. information referred to in A9 (paras 4, 6), A10.6, A11.3, A13, esp. paras 9, 10)	Secretariat (+ Co-facilitators)
	9 synthesis reports	Q1-Q2 2022	Summary of inputs in their areas of expertise	Constituted bodies, forums, other institutional arrangements under or serving the PA and/or Convention, incl. those established after adoption of decision 19/CMA.1** (+ Secretariat)
	Identification of information gaps in GST	TBC	Identify potential information gaps relating to the GST and request additional input where necessary/feasible	SBSTA and SBI
Technical assessment	Summary reports	TD1 SR Q3 2022 (tbc) TD2 SR Q4 2022 (tbc) TD3 SR Q3 2023 (tbc)	Summarise outputs of technical dialogues for each thematic area	Co-facilitators
	Factual synthesis report	Q3 2023	Overarching factual synthesis of thematic summary reports in a cross-cutting manner	Co-facilitators
Consideration of outputs	High-level events	At COP28 Q4 2023	Present findings of 'Technical assessment', Parties to discuss and consider implications	Chaired by high-level committee of CMA Presidencies, SBI and SBSTA Chairs
	CMA decision and/or declaration	At COP28 Q4 2023	Identify opportunities and challenges in enhancing action and support in collective progress in thematic areas Identify possible measures and good practices, international co-operation and related good practices Summarise key political messages, incl. recommendations from high-level events for strengthening action and enhancing support	COP Presidency

Note:

\*Expected timeline based on information available online as of 18 May 2022 (UNFCCC, n.d.[4])

\*\*As noted in (UNFCCC, 2021[6])

Articles referred to in the table are of the Paris Agreement (PA)

Source: Authors based on (UNFCCC, 2018[2]) and (UNFCCC, 2021[6])

The Paris Agreement set out the agreed outcome of the GST using carefully balanced language that links the outcome of the GST with the process of updating Parties' NDCs, while reiterating the "nationally

determined" nature of actions and support (Rajamani,  $2021_{[7]}$ ). In contrast, the language used with regard to "enhancing international co-operation for climate action" (UNFCCC,  $2016_{[1]}$ ) is broad and open to interpretation in multiple ways. For example, it is not clear what is meant by international co-operation, whether this is within the UNFCCC or outside the framework, which organisations/bodies/actors this applies to, and how this links with other initiatives such as the Marrakech Partnership.

The agreed outcome of the GST could be linked to further tangible ("hard") and intangible ("soft") outcomes as set out below:

- Further tangible outcomes could include:
  - Providing guidance to Parties on developing LT-LEDS and aligning these with NDCs: Beyond its role in informing the subsequent round of NDCs, the GST could help increase understanding of long-term climate pathways (e.g. to net-zero) and climate impacts which could provide guidance to Parties in the development or revision of their LT-LEDS and alignment with NDCs.
  - Identifying knowledge gaps in key areas for the research and scientific community to address: Decision 19/CMA.1 includes a provision for SBSTA and SBI to identify potential information gaps relating to the GST and request additional input where necessary or feasible. A further outcome of the GST could thus be its role in identifying knowledge gaps in key areas. The GST process could also be useful in strengthening partnerships between experts and organisations who could then work to close the identified gaps.
  - Refining the modalities of subsequent GSTs based on experiences: Decision 19/CMA.1 includes a provision for learning-by-doing, including in the assessment of collective progress. This ability to incorporate learning and improve future processes will be important for maintaining the effectiveness and relevance of the GST going forward.
- Further intangible outcomes could include:
  - Strengthened political willingness to act on climate across all areas of the Paris Agreement. By engaging all Parties and different non-Party stakeholders throughout the process, the GST could help to create a sense of ownership among participants in the process and subsequent outputs. This could in turn help to build trust among different actors and facilitate further political momentum behind climate action across different areas of the Paris Agreement.
  - Increased understanding of available opportunities for addressing the gaps towards the goals of the Paris Agreement: The GST has the potential to reach a broader audience beyond the UNFCCC process and could help to increase understanding among different actors of available opportunities to plug current gaps towards the goals of the Paris Agreement. This would also support the agreed outcome of the GST of informing Parties in "enhancing" their national actions, as well as "enhancing international co-operation for climate action".
  - Improved dialogue between Parties as well as with non-Party stakeholders. The technical dialogues, joint contact groups and high-level events planned under the GST (as well as events organised outside the formal GST process) will provide a space for dialogue and exchange among different actors. These interactions can help to improve understanding of the priorities and concerns of actors from different countries and regions and engage in a dialogue on lessons learned and opportunities for enhancing action.

#### 3.2. Modalities to facilitate the translation of outputs to outcomes

Achieving the desired outcomes of the GST will depend on the modalities of the underlying process and the outputs that come out. How can the GST process and outputs be designed in such a way as to strengthen ownership and build political momentum within the process to ensure operational action follows? How can this built-in political momentum be carried over into subsequent national processes and

efforts by non-Party stakeholders? (Dagnet, Leprince-Ringuet and Mendoza, 2020<sub>[10]</sub>). What insights can be learnt from experiences with international assessment and review processes on approaches and processes that can facilitate the translation of outputs into outcomes?

This paper explores experiences with a number of previous international assessment and review processes under the UNFCCC and beyond – Technical Examination Process on Mitigation and Adaptation; Talanoa Dialogue; First Periodic Review; International Consultation and Analysis; Review processes under the Montreal Protocol; and the High-Level Political Forum. These experiences, summarised in 6. Annex A, highlight factors relating to the modalities of a process that could facilitate the operationalisation of outcomes including: Engagement of Parties in the process; engagement of non-Party stakeholders; the role played by science in informing the discussions and decision-making; the format and organisation of technical and political discussions; separate but sequenced technical and political tracks; learning-by-doing. These factors and how they relate to the GST are discussed below.

#### 3.2.1. Effectively engaging Parties in the process can help strengthen ownership

If the GST process is able to generate a strong sense of ownership among Parties, this could facilitate the translation of outputs to outcomes as Parties may be more willing to take forward final outcomes they have had a strong role in shaping. A sense of ownership could be reflected in the level and quality of engagement of Parties in the process. For example, research findings indicate the Talanoa Dialogue lacked concrete outputs beyond reports and summaries and left a limited imprint, including on national processes to develop NDCs (Rajamani, 2021<sub>[7]</sub>). This could be explained by the relatively limited engagement by all Parties (of the 473 inputs submitted, 44 inputs were by 156 Parties including 24 submissions by individual Parties and 20 submissions by groups of Parties (UNFCCC, 2018<sub>[11]</sub>)), alongside other challenges such as reporting and data availability, the scope of policy interventions covered, and limited assessment of the effectiveness of policy packages underlying NDCs (Mundaca et al., 2019<sub>[12]</sub>).

Effective engagement of Parties in a process can also play an important role in building trust among participants and facilitate the translation of outputs to outcomes. For example, at its start, the First Periodic Review (FPR) did not have a mandate to produce a formal output given political sensitivities. By the end of the FPR process, sufficient trust had been built up among actors which led Parties to support the adoption of a formal output (Milkoreit and Haapala, 2019<sub>[13]</sub>). Some processes adopt specific approaches to help build trust, for example, the format of the Talanoa Dialogue (i.e. participants sitting in a circle, no computers) created a safe space for dialogue and an atmosphere of trust among participants.

The inclusivity of the process is another important factor that could facilitate the translation of outputs to outcomes. Decision 19/CMA.1 recognises the need for funding and capacity building support to ensure full and active engagement by developing country Parties in all activities under the GST, and to facilitate takeup of relevant information from the GST (UNFCCC, 2018[2]). Previous experience suggests how resource and capacity constrains could limit effective participation of certain Parties. For example, in the Facilitative Sharing of Views (FSV) process, limited time and capacity of some participants may have contributed to superficial assessments in certain cases (Gupta et al., 2021[14]). Furthermore, holding FSV sessions in parallel to UNFCCC political negotiations could hinder meaningful participation by all Parties, especially small developing countries, as noted by some delegations (South Africa, 2017[15]).

#### 3.2.2. Engaging non-Party stakeholders in the process can facilitate follow-up

Effective engagement of non-Party stakeholders throughout the process can help strengthen ownership and thereby facilitate follow-up. Stakeholders can be engaged in different roles in a process. For example, to facilitate expert input in the TEP process, Technical Expert Meetings (TEMs) and Regional Technical Expert Meetings (RTEMs) were organised in partnership with different governmental, non-governmental and regional organisations (UNFCCC Secretariat, 2015<sub>[16]</sub>). In the review process of the Montreal Protocol,

the inclusion of technical industry experts in the Technology and Economic Assessment Panel (TEAP) helped advance innovations in alternative substances and technologies (Beuermann, Obergassel and Wang-Helmreich, 2020<sub>[17]</sub>) and paved the way for "a gradual increase of the ambition and ultimately the success of the Montreal Protocol" (Hermwille, 2018<sub>[18]</sub>).

The GST is framed as a transparent, inclusive process involving the participation of non-Party stakeholders. The engagement of non-Party stakeholders in the GST is to be supported by the High-Level Climate Champions (UNFCCC, 2021<sub>[3]</sub>). There is an opportunity to enhance linkages with non-Party stakeholders across different components of the GST. For example, non-Party stakeholders could provide inputs directly to the GST portal, be invited to make presentations at technical dialogues, and could organise stakeholder events to feed into the process, e.g. around Regional Climate Weeks. Non-party stakeholders could also organise high-level non-Party stakeholder events during the 'Consideration of outputs' component of the GST, and representatives of non-Party stakeholders (e.g. the High-level Climate Champions) could be invited to participate in the high-level political events (Vaidyula and Ellis, 2017<sub>[19]</sub>).

The outputs of the GST could also provide a trigger for enhanced ambition and action among non-Party stakeholders similar to how the outcomes of the TEMs were taken forward in the work of the Marrakech Partnership (see Box 3.1). Supporting the GST is already a key feature of the 2021-2025 plan of the Improved Marrakech Partnership (UNFCCC, 2021<sub>[20]</sub>) and could be built upon. Follow-up will depend on various factors including the level of participation of non-Party stakeholders in the GST process as well as the formulation of the final package of outputs. For example, GST outputs could be framed to include details of new or existing initiatives by non-Party stakeholders (e.g. the Breakthrough Agenda and the Climate Action Pathways of the Marrakech Partnership) and/or identify opportunities in key sectors which can more easily be followed-up (Rajamani, 2021<sub>[7]</sub>).

#### Box 3.1. Exploring the engagement of NPS in the TEP

A mid-term assessment of the Technical Examination Process (TEP) in 2017 identified key ways to improve the effectiveness of the process (UNFCCC, 2018<sub>[21]</sub>). The recommendations included improved integration of the TEP with the Marrakech Partnership for Global Climate Action, engagement of expert organisations in Technical Examination Meeting on Mitigation (TEMs-M), and the organisation of Regional Technical Expert Meetings (RTEMs) by Parties and non-Party stakeholders.

Following the mid-term assessment, the engagement of non-Party stakeholders in the TEP increased. RTEMs (11 on mitigation and 12 on adaptation) were organised, in partnership with a number of nongovernmental organisations, such as the Global Alliance for Buildings and Construction, the Stockholm International Water Institute or the World Business Council for Sustainable Development. The RTEMs built on other climate events in different regions, including the UNFCCC's Regional Climate Weeks.

Non-Party stakeholders both informed the TEP process and built on its outcomes in their activities. For instance, while the High-Level Climate Champions helped identify topics for the TEP-M; the topics and focus areas for TEMs-M and TEMs-A also informed the work programmes of the Marrakech Partnership for 2019-2020 and 2020-2021 ( (UNFCCC, 2019<sub>[22]</sub>), (UNFCCC, 2020<sub>[23]</sub>)). Furthermore, the success of RTEMs contributed to the Marrakech Partnership's intention to strengthen the regional approach (UNFCCC, 2020<sub>[9]</sub>) and is also reflected in the "Improved Marrakech Partnership 2021-2025" plan which includes broadening engagement globally, e.g. by establishing regional hubs (UNFCCC, 2021<sub>[20]</sub>).

Source: Box drafted by Zofia Kunysz (OECD).

#### 3.2.3. The role played by science in informing discussions and decision-making

The Glasgow Climate Pact recognised "the importance of the best available science for effective climate action and policymaking" and also invited Parties to update their LT-LEDS "regularly, as appropriate, in line with the best available science" (UNFCCC, 2021<sub>[3]</sub>). The GST could help to inform this process. For example, discussions during the technical dialogues and joint contact groups could help to improve understanding of climate pathways (e.g. to net-zero) and impacts at different time scales. This improved understanding could in turn help to guide Parties in the development/revision of their LT-LEDS and alignment with their NDCs.

Experience under the Montreal Protocol indicates how linking a policy review process to the latest scientific information can inform decision-making going forward. For example, the Quadrennial Assessment reports by the TEAP and the Scientific Assessment Panel helped to influence decisions of the Meeting of the Parties to the Montreal Protocol (Beuermann, Obergassel and Wang-Helmreich, 2020<sub>[17]</sub>). Under the First Periodic Review (FPR), Structured Expert Dialogue (SED) meetings provided a platform for open, substantive discussions between Parties and experts on the latest scientific knowledge and helped inform the formulation of subsequent evidence-based climate policies (Prasad, Ganesan and Gupta, 2017<sub>[24]</sub>). The findings of the 2013-2015 SED also influenced the strengthening of the long-term global temperature goal as highlighted in Decision 10/CP.21, (UNFCCC, 2016<sub>[25]</sub>)) - see Box 3.2.

#### Box 3.2. The role and impacts of the First Periodic Review Process

The First Periodic Review (FPR) under the UNFCCC process, and in particular its Structured Expert Dialogue (SED), is widely considered a successful process that linked science and policy perspectives (Fischlin, 2016<sub>[26]</sub>) and led to the revision of the long-term global temperature goal and its inclusion in the Paris Agreement. Several characteristics of the SED facilitated the uptake of its findings, including that it was considered to be a fair, inclusive process conducted in an efficient way and remained technical in nature (Milkoreit and Haapala, 2019<sub>[13]</sub>). SED meetings were open to all Parties and observers and included presentations delivered by experts from the IPCC, processes and bodies under the Convention, regional and intergovernmental organisations. Discussions were structured around guiding questions (UNFCCC, n.d.<sub>[27]</sub>), and provided an opportunity for a true science–policy dialogue.

During the SED process, the 1.5°C goal gained political attention, however information available on the 1.5°C goal at the time was limited. The SED, therefore, focused largely on these limitations, as well as possible future advancements in science (Livingston and Rummukainen,  $2020_{[28]}$ ). The final SED report concluded that "While science on the 1.5 °C warming limit is less robust, efforts should be made to push the defence line as low as possible" (UNFCCC,  $2015_{[29]}$ ). Decision 10/CP.21 took note of the findings of the SED and concluded that "the goal is to hold the increase in the global average temperature to well below 2 °C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 °C above pre-industrial levels, recognising that this would significantly reduce the risks and impacts of climate change" (UNFCCC,  $2016_{[25]}$ ). This was also reflected in the Paris Agreement (UNFCCC,  $2016_{[1]}$ ).

In addition, the Paris Agreement encouraged the scientific community to address research gaps highlighted by the SED (UNFCCC, 2016<sub>[25]</sub>) and invited the IPCC to provide a special report "on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways" (UNFCCC, 2016<sub>[1]</sub>). This IPCC Special Report was released in 2018 and provided further scientific information on the difference in climate change impacts between the 1.5°C and the 2°C temperature limits (IPCC, 2018<sub>[30]</sub>). There is now increasing acceptance of the 1.5°C goal, for example one of the key themes at COP26 was "keeping 1.5 alive" (UNFCCC, 2021<sub>[31]</sub>).

Source: Box drafted by Zofia Kunysz (OECD).

Decision 19/CMA.1 includes a provision for SBSTA and SBI to identify potential information gaps relating to the GST and request additional input where necessary or feasible. Based on this, Parties and non-Party stakeholders, including the research community, could seek to generate knowledge to address identified gaps for the current or subsequent GST cycle. For example, the TEP-A helped the Adaptation Committee identify areas where further technical work is needed. The Adaptation Committee subsequently mobilised partners to close identified knowledge gaps, building on the foundation provided by the TEP-A (UNFCCC, 2021<sub>[32]</sub>).

## 3.2.4. Well-organised, targeted discussions can influence the focus, form and content of subsequent outputs

Given the time and resource constraints on GST1, as well as its comprehensive scope and inclusive nature, it will be important that technical discussions are efficient, focused and iterative to generate outputs that can facilitate subsequent follow-up. In the SED meetings under the FPR, clear guiding questions based on stakeholder inputs were used to inform the focus of the presentations and structure the meetings (Fischlin, 2016<sub>[26]</sub>). The focus and content of presentations were carefully managed by the co-facilitators to focus on questions being asked, rather than merely showcasing general good practices. Conscious time

management rules at SED meetings helped ensure the efficient use of resources and time spent (Milkoreit and Haapala, 2019[13]).

The format of technical meetings (i.e. whether they facilitate interactive exchanges between participants, if sufficient time is allocated for discussion) can also influence final outputs and subsequent follow-up. For example, the agenda of SED meetings allocated more time for discussions than presentations to facilitate an interactive dialogue between experts and Parties (Fischlin, 2016<sub>[26]</sub>). In contrast, an assessment of the FSV process found there was no space for dialogue or in-depth exchange on specific best practices which limited prospects for learning (Gupta et al., 2021<sub>[14]</sub>). The content of presentations can also influence the final output. For example, reviews under the High-Level Political Forum (HLPF) suggest presentations focusing on data collected against indicators need to be complemented by policy analysis to help countries discuss recommendations for appropriate action (Beuermann, Obergassel and Wang-Helmreich, 2020<sub>[17]</sub>).

The high-level events in the 'Consideration of outputs' component will play an important role in translating the outputs of the technical process into a strong political outcome. The format of high-level events could influence the depth of discussions and subsequent outputs. Rather than a traditional plenary format, a more interactive format such as round tables or breakout groups, could help ministers improve understanding and facilitate convergence on recommendations to put forward for consideration at the COP. The political discussions could also be guided by clear, targeted questions shared in advance. Previous experience provides some insights on how such high-level discussions could be organised. For example, at a COP19 high-level ministerial dialogue on climate finance, certain Ministers were invited to share thoughts on set topics at the start of the meeting to help "break the ice". Participants were then invited to share views in response to specific guiding questions, but were not allowed to present statements (Vaidyula and Ellis, 2017<sup>[19]</sup>).

#### 3.2.5. Separate but sequenced technical and political tracks can strengthen buy-in

Separating the technical assessment phase from the political phase can help to ensure the integrity of the technical recommendations coming out of the process. This can strengthen ownership, facilitate follow-up and translation of outputs to outcomes. For example, in the FPR, the separation of the technical work (through the SED) and the political body (joint contact group) helped ensure SED discussions were focused on science and were not influenced by political discussions. This was an important factor strengthening ownership of the final FPR output by negotiators involved (Milkoreit and Haapala, 2019[13]).

At the same time, it is important that the political component effectively captures conclusions of the technical discussions and provides strong political recommendations which can be carried forward. A key question is how to translate the technical discussions into a true political trigger for action. If the processes are completely unaligned, they could fall short of their objectives. For example, in the HLPF process, the Political and/or Ministerial Declarations are negotiated by governments before HLPF sessions and thus do not take into account discussions on different thematic, national, or regional issues raised in the sessions (Beuermann, Obergassel and Wang-Helmreich,  $2020_{[17]}$ ). Reaching the right balance is critical. The hybrid nature of the FPR process, which took place in the context of the international negotiations, strengthened its ability to influence the dynamics of the negotiations. For example, discussions in the SED helped change the perspective of some participating countries on the global temperature goal, contributing to increasing political support for the 1.5°C goal which was eventually reflected in the Paris Agreement (Milkoreit and Haapala,  $2019_{[13]}$ ).

## 3.2.6. Maintaining flexibility and learning-by-doing can improve the process over time

Flexibility in the organisation of the process, i.e. to adjust rules, procedures, and approaches to reflect changing conditions or to take into account learning, (Milkoreit and Haapala, 2019[13]) can enhance

participation by Parties and non-Party stakeholders and improve the process over time. An example of flexibility in practice is from the TEMs, where meetings in the final year were held virtually due to the Covid-19 pandemic. Although this shift brought some challenges, it also created new opportunities such as the ability to engage a broader group of stakeholders, including youth and private sector organisations, who may otherwise not have been able to participate in meetings usually held in the margins of UNFCCC intersessional meetings in Bonn (UNFCCC, 2021<sub>[32]</sub>).

As the GST is a recurring exercise, the ability to incorporate learning and evolve over time will be important so the modalities of the overall process can be revised/refined on the basis of experience (UNFCCC, 2018<sub>[2]</sub>). Continued access to inputs and outputs after the conclusion of the GST will be an important part of the learning-by-doing process. It will be important that all work under GST1 is publically available afterwards so it can inform subsequent GST process and enable learning-by-doing. Experiences with previous international review processes reiterate the value of mid-term reviews. For example the mid-term review of the TEP identified different ways to improve the effectiveness of the process and led to certain improvements, such as increased involvement of non-Party stakeholders – see Box 3.1.

#### 3.3. Formulation of outputs to facilitate follow-up by different actors

The formulation of the final package of GST outputs can play a critical role in facilitating subsequent followup by different actors and in reaching desired outcomes of the GST. This includes the focus, level of aggregation/disaggregation, clarity, accessibility and detail of GST outputs. These factors and potential elements of the final package of GST outputs are discussed below, drawing on insights from previous experiences with international review processes (see overview in 6. Annex A).

On the potential focus of GST outputs – there is growing recognition of the near-term implementation gap and the need to urgently scale up climate action to meet the goals of the Paris Agreement (e.g. (IPCC, 2022<sub>[33]</sub>) (UNFCCC, 2021<sub>[34]</sub>)), (UNEP, 2021<sub>[35]</sub>); (UNEP, 2021<sub>[36]</sub>); (Climate Action Tracker, 2021<sub>[37]</sub>)). This is reiterated in the Glasgow Climate Pact (UNFCCC, 2021<sub>[3]</sub>). To add value in this context, GST1 could start from the basis that there is a gap and focus on how to plug this gap, and identify specific opportunities to do so (Rajamani, 2021<sub>[7]</sub>). This would also support the agreed outcome of the GST of informing Parties in "enhancing" their national actions, as well as enhancing international co-operation for climate action. Focusing the GST on implementation could facilitate the take-up of recommendations and provide a multilateral peer-learning platform on how to make the needed transformations happen (Milkoreit and Haapala, 2017<sub>[38]</sub>). At the same time, given the potential role of the GST in informing longer-term thinking, it could be useful to complement a potential focus on implementation with a longer-term framing and the importance of aligning short-and long-term efforts.

On the potential level of aggregation/disaggregation of GST outputs – how the GST process and outputs are organised (e.g. by sector or thematic area) could influence subsequent follow-up. For example, a sectoral approach which reveals collective gaps in different sectors and identifies potential opportunities to plug identified gaps could help facilitate take-up by non-Party stakeholders (Rajamani, 2021<sub>[7]</sub>). Some observers suggest the GST could break down long-term targets to the sector level and launch work streams involving sector experts and stakeholders to develop roadmaps on how to achieve sectoral targets, following a similar approach to review bodies under the Montreal Protocol (Beuermann, Obergassel and Wang-Helmreich, 2020<sub>[17]</sub>). Such sectoral activities could be carried forward in other processes such as the new work programme on mitigation as discussed in section 2.3 and could build on existing initiatives such as the Breakthrough Agenda, the Climate Action Pathways of the Marrakech Partnership and/or efforts to take forward sectoral initiatives launched at COP26.

While a sectoral approach could potentially be useful to facilitate take-up of GST outputs, there may also be some challenges to adopting such an approach, from a political perspective given the mandate of the GST, as well as from a practical perspective. Adopting a sectoral approach requires inputs that can enable

discussions at this level, with sufficient time and resources allocated for these purposes. This implies among others, the "availability of country assessments with sectoral granularity, multi-scale considerations and short-long term coherence" (Gunfaus and Waisman, 2021<sub>[39]</sub>). Data availability may thus be a constraint to pursuing such a sectoral approach at least in the short-term in GST1. In addition, adopting a sectoral lens may make it more challenging to assess collective progress on cross-cutting issues such as finance, means of implementation and support, adaptation, and equity.

On the potential clarity and accessibility of GST outputs – GST could reach a broader audience beyond the UNFCCC negotiating process depending on various factors including the design of the process (as discussed in previous sections), as well as the clarity and accessibility of the final output. This includes timely and transparent access to inputs, outputs and information on relevant activities under the GST process, as well as clear outputs formulated in a way that can be used by different stakeholders to inform follow-up actions and develop more tailored communications for a broader audience.

On the potential detail of GST outputs – a final package of outputs which provides clarity in terms of required processes and timelines, avoids general guidance (Charles et al.,  $2021_{[40]}$ ), and endorses the results from the technical discussions would provide a strong signal and facilitate follow-up. For example, the outputs of the SED were endorsed in the COP decision and reflected in the Paris Agreement. In contrast, the outputs of the Talanoa Dialogue process were of a non-committal nature and did not provide specific recommendations or guidance for Parties (Beuermann, Obergassel and Wang-Helmreich,  $2020_{[17]}$ ).

To improve the signalling function of the GST, the final package of outputs could include different elements as set out in Table 3.2. For example, outputs from the 'Technical assessment' component of the GST could include technical annexes focusing on mitigation, adaptation, and means of implementation and support opportunities in key sectors, similar to how technical papers produced under the TEP identified technological innovations, policy options, best practices and potential actions to replicate and scale solutions in different thematic areas (UNFCCC, n.d.[41]). As part of the 'Consideration of outputs' component of the GST, the final package of outputs could include recommendations of possible follow-up actions by different actors such as Parties, UNFCCC processes, relevant bodies, and non-Party stakeholders. Some elements could take place during the GST to feed into the process (e.g. via discussions during Regional Climate Weeks), while others could take place after the GST has concluded, through processes within the UNFCCC (e.g. via technical expert reviews of BTRs) or outside (e.g. via non-Party stakeholder initiatives on key sectoral pathways).

#### Table 3.2. Potential elements of a final package of GST outputs to facilitate follow-up

Element	Detail	Description
Technical annexes	Set out opportunities in key sectors and steps to accelerate action	Technical annexes to outputs from the 'Technical assessment' component could identify conditions for accelerating ambition in key sectors, focusing on mitigation, adaptation, and means of implementation and support opportunities, and outline a portfolio of potential options that could be scaled up and replicated, taking into account different national circumstances (see for example: (Obergassel et al., 2019 <sub>[42]</sub> ); (Rajamani, 2021 <sub>[7]</sub> ); (Perez Catala et al., 2021 <sub>[43]</sub> )). Technical annexes could include details of new or existing initiatives in key sectors which could help to strengthen linkages with relevant on-going efforts, e.g. existing initiatives such as the Breakthrough Agenda and Climate Action Pathways of the Marrakech Partnership and/or efforts to take forward sectoral initiatives launched at COP26.
Recommendations of possible follow- up actions by Parties, UNFCCC processes and relevant bodies	Parties could indicate how subsequent NDCs have been "informed" by the outcomes of the GST	In line with Article 4.9 of Paris Agreement and guidance in Decision 4/CMA.1 to facilitate clarity, transparency and understanding of NDCs (UNFCCC, 2019 <sub>[44]</sub> ), a recommendation that Parties indicate how subsequent NDCs have been "informed" by the GST could encourage them to think about the GST when developing their NDC. This could be similar to how some Parties indicate how equity considerations have been taken into account in their NDC.
	Relevant bodies could be encouraged to incorporate GST recommendations in their work	Relevant bodies such as the Paris Committee on Capacity-building (PCCB), Technical Expert Groups, Consultative Bodies, etc. could prioritise capacity building to implement GST recommendations, to update NDCs, to develop LT-LEDS, to align NDCs with LT-LEDS, to improve monitoring and data collection to inform future GST processes, etc.
	Build on reporting and review processes under the Paris Agreement	Technical expert reviews of biennial transparency reports (BTRs) could consider whether or not a Party has reported information on if/how their NDC has been informed by the outcomes of the GST in line with Article 4.9 of the Paris Agreement and guidance set out in Decision 4/CMA.1 to facilitate clarity, transparency and understanding of NDCs.
	Secretariat could prepare a report on lessons learned from GST1	The UNFCCC secretariat could prepare a report on lessons learned to be made available at COP29. The findings of this report could be used to inform preparations for GST2.
Recommendations of possible follow- up actions by non- Party stakeholders	Regional Climate Weeks could include sessions on GST	Events on GST1 have been organised in some Regional Climate Weeks in 2022 (e.g. MENA Climate Week in March 2022). This practice could be continued in other regions over the 2022-24 period (i.e. both during the GST1 process and after it has concluded) to discuss opportunities at the regional level, challenges faced in translating GST outputs and how to overcome them.
	Non-Party stakeholders could be encouraged to incorporate GST recommendations in their work	Non-party stakeholders, relevant organisations and institutions could integrate GST recommendations in their work, e.g. to support NDC planning processes in different countries, to support domestic advocacy, communication and education activities in different countries, to take forward relevant sectoral initiatives, etc.

Source: Authors

# 4. Potential enablers to translate collective GST outputs into national action

The translation of the collective outputs from the GST process into an outcome that informs Parties in updating and enhancing their national actions and support is not automatic and cannot be taken for granted. Various contextual factors, both external and domestic, affect the translation of guidance from UNFCCC processes into national level policies and processes. This has been noted by UNDP, who, on the basis of their experience in supporting the development of NDCs in 120 countries in the lead up to COP26, concluded that "climate action is nuanced and context specific" (UNDP, 2021[45]).

Previous experiences illustrate how UNFCCC mandates are not automatically incorporated into national policies and programming. For example, the 2018 Talanoa Dialogue process (see Box 4.1) resulted in the issuance of the Talanoa Call for Action (UNFCCC, 2018[46]) which "…served only little to reinforce a sense of urgency" (Beuermann, Obergassel and Wang-Helmreich, 2020[17]). Similarly, experience with the development of the second round of NDCs (new NDCs or updated NDCs) by 2020 highlight the gap between UNFCCC mandates and experience on the ground (see Box 4.2). "An open question for the GST is how to ensure that Parties fully engage with the information from the stocktaking process and incorporate lessons learned into their national policies" (Beuermann, Obergassel and Wang-Helmreich, 2020[17]).

In this context, it is important to identify potential barriers and enabling factors that have facilitated the translation of UNFCCC outputs into ambitious national climate action. These can provide insights into the kind of enabling factors that could be utilised by the climate change community including the UNFCCC/GST process, COP Presidency, UNSG, UN Agencies and non-Party stakeholders, to influence the translation of the GST outputs into desired outcomes at the national level. This section reviews experiences with the development of the second round of NDCs to identify relevant enabling factors which could be useful in thinking about how to translate collective GST outputs into Parties' efforts to update and enhance national actions.

#### Box 4.1. The Talanoa Dialogue and the second round of NDCs

The Talanoa (Facilitative) Dialogue was mandated to inform the preparation of Parties nationally determined contributions (NDCs). The Dialogue initiated inclusive processes across the majority of UNFCCC Parties and engaged a large number of stakeholders.

At its conclusion, the Dialogue produced a Report titled Talanoa Dialogue: From Ambition to Action (COP23 Presidency Secretariat, 2017<sub>[47]</sub>) and a Talanoa Call for Action (UNFCCC, 2018<sub>[46]</sub>). The Report addressed the findings of the three questions considered by the Talanoa Dialogue i.e. Where are We? Where do we want to go? And How do we get there? The Report made a strong case for finding "…ways to prevent warming of greater than 1.5 degrees Celsius" and identified possible solutions that countries could learn from in developing their national strategies. The Talanoa Call for Action inter alia noted that the key messages from the Dialogue "… can inform Parties' Nationally Determined Contributions by 2020". This was further referenced in Decision 1/CP.24 where the COP "*Invites* Parties to consider the outcome, inputs and outputs of the Talanoa Dialogue in preparing their nationally determined contributions and in their efforts to enhance pre-2020 implementation and ambition" (UNFCCC, 2019<sub>[48]</sub>).

The impact of the Talanoa Dialogue process on subsequent NDCs is difficult to assess. Some research findings indicate that the process was more successful in raising awareness at the national level and in triggering national inclusive processes in the preparation of the second round of NDCs, rather than in informing and influencing the level of ambition in these NDCs ( (Beuermann, Obergassel and Wang-Helmreich, 2020<sub>[17]</sub>); (Charles et al., 2021<sub>[40]</sub>); (Rajamani, 2021<sub>[7]</sub>)).

Source: Authors.

#### Box 4.2. Development of the second round of NDCs

The provisions of the Paris COP Decision (UNFCCC, 2016<sub>[1]</sub>) requested Parties to "...communicate or update..." their NDCs by 2020. By 31 December 2020, 48 NDCs, representing 75 Parties had been submitted. By 30 July 2021, 86 new or updated NDCs were communicated by 113 Parties and by 2 November 2021, 124 new or updated NDCs were communicated by 151 Parties ( (UNFCCC, 2021<sub>[34]</sub>). Additional NDCs were submitted at or subsequent to COP26 and as of 31 December 2021, 131 new or updated NDCs were submitted by 158 Parties while 35 Parties had not communicated new or updated NDCs (UNFCCC, 2022<sub>[49]</sub>).

Many of these NDC submissions were driven by concerted efforts by the UN Secretary General, UN agencies, the COP Presidency team and civil society organisations over an extended period, alongside various domestic factors. Moreover, as noted in a UNDP report (UNDP, 2021<sub>[45]</sub>), while 93% of all Small Island Developing States (SIDS) and Least Developed Countries (LDCs) had plans to enhance their NDCs prior to COP26, only 16 G20 countries had submitted revised NDCs as of 12 October 2021, of which five did not strengthen their mitigation goals. The UNDP report concluded that as of that date, "...nearly half the G20 are not adhering to the core principles of the Paris Agreement to ratchet up their GHG emissions targets." (UNDP, 2021<sub>[45]</sub>). This experience indicates how despite a mandate from a COP Decision, many Parties did not automatically initiate processes to update and enhance their NDCs and may require further political efforts to encourage them along – see discussion in section 5.

Source: Authors.

#### 4.1. Factors influencing national uptake of international outputs

Research by civil society organisations and the experience of actors in preparing the second round of NDCs, highlight a number of factors that influence the adoption of UNFCCC recommendations at the national level. Some of these factors are external to the national context, e.g. geo-political considerations, and some are inherent features of the domestic context, e.g. domestic enabling environment. The relative importance of external and domestic factors can vary between developed and developing countries.

Many of the external and domestic factors discussed in this section can influence the translation of GST outputs into outcomes, even if they are not a core part of the mandate of the GST. Thus, it is important to recognise the role of these factors early in the process so that measures to address them could be discussed during the 'Consideration of outputs' component of the GST.

#### 4.1.1. Formulation of outputs

As discussed in section 3., the formulation of outputs is a key factor in facilitating the achievement of desired outcomes of the GST. Outputs that provide clarity and specificity in terms of required processes, deadlines, and recommendations, avoid general guidance and are endorsed by the final CMA decision, are more likely to be used at the national level (Beuermann, Obergassel and Wang-Helmreich, 2020[17]).

Previous experience underlines the importance of formulating specific, actionable outputs in the GST process. For example, the Talanoa Dialogue Call for Action included general calls for bold leadership and joint action to "translate the global vision of the Paris Agreement into national and local action, provide the necessary resources, and motivate and mobilise all stakeholders to help support and deliver a net-zero emission and climate-resilient future" (UNFCCC, 2018[46]). These calls were vaguely formulated, of a non-committal nature and did not translate the outcomes of the Talanoa Dialogue into specific

recommendations or guidance for Parties ( (Beuermann, Obergassel and Wang-Helmreich, 2020[17]); (Rajamani, 2021[7])).

#### 4.1.2. Global political advocacy and geo-political considerations

As discussed in section 5. the extent and intensity of global political advocacy is a critical factor influencing the uptake of international recommendations at the national level. This can be an important factor for increasing the ambition of climate action and could play a particular role for certain countries. For example, larger emitters may be more amenable to participate in collective action if other countries are already on board (Charles et al., 2021<sub>[40]</sub>).

Geo-political considerations, such as trade, global technology sharing and financing for development, are another important factor affecting opportunities for enhancing national ambition. This factor was highlighted by Parties during outreach by the COP Presidency in the lead-up to COP26 and is particularly important for developed countries and large developing countries which considered climate action as one item in a mix of relevant geo-political issues.

#### 4.1.3. National political commitment and enabling environments

Various factors at the national level, including the level of national political commitment and the domestic enabling environment, can have an important influence on the translation of international outputs into outcomes at the national level. National level factors affecting the translation of outputs to outcomes at the national level include institutional structures, regulatory frameworks, localised challenges (e.g. related to governance), as well as mechanisms and processes in place ( (Beuermann, Obergassel and Wang-Helmreich, 2020[17]); (Charles et al., 2021[40])).

In the lead-up to COP26, the commitment and endorsement of national political leaders was a key factor influencing the ambition of climate action in different countries. This commitment was influenced by various concerns depending on the country. In some high-emitting countries, there were concerns over the potential economic impact of emission reduction strategies and the need to ensure a just transition in impacted sectors. In some low-emitting vulnerable LDCs and SIDS, political structures were not prioritising climate change and were sometimes exacerbated by a weak domestic enabling environment including inadequate institutional frameworks, limited local human capacity, lack of required inputs (e.g. data and technical information), inadequate mechanisms for building awareness and understanding of international guidance and the need to implement it ( (Charles et al., 2021[40]), (UNDP, 2021[45])).

#### 4.2. Enabling factors to facilitate the translation of GST outputs into national action

The challenges discussed above can be addressed through various strategies, building on the experience of different actors in this area to support countries in the implementation and enhancing the ambition of their NDCs. Challenges to translating international recommendations at the national level and potential enabling factors to address them are summarised in Table 4.1 and explored further below. In addressing challenges to translating GST outputs into national action, a one-size fits all approach is not possible given different national circumstances and starting points. For example, while nearly all countries have put in place or are in the process of institutionalising mechanisms to support government coordination and stakeholder consultations on their NDCs, progress varies among countries, e.g. "…while 92% of countries are strengthening the systems for measuring progress of their NDCs, only 4% have a comprehensive system in place." (UNDP, 2021<sub>[45]</sub>).

Challenge	External or Domestic	Enabling Factors	Key Actor(s)	Timing for GST1	
Formulation of GST outputs	External	Effective participation in GST processes by all Parties and relevant non-Party stakeholders Developing countries may need support (as included in 19/CMA.1, paras 11 & 12) Format and sequencing of discussions	All Parties and non- Party stakeholders	GST process 2022 - 2023	
Global political advocacy and momentum	External	Advocacy by leaders in high-level fora of the UN, G7, G20, spotlighting countries taking the lead and urging others to implement GST recommendations	UNSG, Heads of state, ministers, leaders of global and regional organisations	Post-GST to NDC submission 2023 – 2025	
<ul> <li>National political commitment</li> <li>Political importance of climate action</li> <li>Stakeholder and societal ownership of climate action</li> </ul>	Domestic	Advocacy to secure political buy-in at national level Stakeholder engagement activities Public education	Senior government officials and civil society with external support International funding agencies e.g., GCF Bilateral partners	Post-GST to NDC submission 2023 – 2025 GST and post-GST processes 2022-2025	
<ul> <li>Weak enabling environments</li> <li>Institutional frameworks</li> <li>Lack of human capacities</li> <li>Limited data and technical information</li> <li>Limited awareness and understanding</li> </ul>	Domestic	Provision of technical and financial support to address specific challenges Capacity building Improved public awareness	Senior government officials with external support	2022 and ongoing as part of NDC implementation process	

#### Table 4.1. Enabling factors for translating GST1 outputs into desired outcomes

Source: Authors.

#### 4.2.1. Formulation of GST outputs

As discussed in section 3., the formulation of the overall package of GST outputs is a critical first step in ensuring its translation into action at the national level. Specific, actionable outputs, which are accessible and provide clear guidance to different actors, can facilitate subsequent take-up.

Achieving such outputs will require effective participation by all Parties and non-Party stakeholders throughout the GST process. This is recognised in Decision 19/CMA.1 which includes provisions concerning adequate funding and capacity building support for the effective participation of developing country Parties in all activities under the GST and to "take up relevant global stocktake information" (UNFCCC, 2018<sub>[2]</sub>).

#### 4.2.2. Global political advocacy and momentum

The creation of an environment that maintains attention on the GST is one important factor for triggering follow-up action. Such an environment can be created by leaders at all levels continually emphasising the importance of following up on the GST outputs within a stipulated timeframe - see further discussion in section 5.

Addressing wider geo-political concerns such as trade, global technology sharing and financing for development, could encourage certain countries to prepare new or updated NDCs. Taking geo-political

considerations into account could also lead to innovative solutions, such as the agreement reached in advance of COP26 to support the phase-out of coal in South Africa (Hanspal, 2021<sub>[50]</sub>).

#### 4.2.3. National political commitment and enabling environment

To create an environment that maintains pressure around the GST, one option, as noted in section 3. is for the final package of GST outputs to integrate a recommendation [or "invitation"] that Parties include how the GST has been taken into account in their NDCs. Depending on how this recommendation or invitation is worded, it could require or encourage countries to think about the GST in developing their updated NDCs and could help to strengthen/maintain political commitment to follow-up recommendations from the GST. There is a precedent in the outcome, inputs and outputs of the Talanoa Dialogue being referenced to in this way in Decision 1/CP.24 (UNFCCC, 2019[48]).

Any recommendation or invitation for Parties' to indicate how their NDCs have been informed by the GST could be reinforced by domestic advocacy, communication and education activities by civil society groups to raise awareness and mobilise support at the national level. The final package of GST outputs could encourage enhanced support through existing channels in the UNFCCC Financial Mechanism (e.g. via readiness programming under the GCF) towards domestic advocacy, communication and education activities to help create a more favourable environment to implement GST recommendations at the national level.

Dedicated support to assist countries in strengthening domestic enabling environments for climate action could facilitate the translation of collective GST outputs at the national level. This could also help to enhance the feasibility of implementing more ambitious adaptation and mitigation options as recognised in the IPCC AR6 WGIII report (IPCC, 2022<sub>[33]</sub>). Such support could address different factors depending on the domestic context, such as strengthening human capacity and institutional frameworks, addressing identified gaps in data and technical information, capacity building and public awareness raising activities,. For example, the Capacity Building Initiative for Transparency (CBIT) was set up by the Paris Agreement to assist countries in developing their transparency frameworks and to support implementation of enhanced transparency requirements under the Agreement (UNFCCC, 2016<sub>[11]</sub>). As part of a discussion on facilitating achievement of GST outcomes during the 'Consideration of Outputs' component, the final package of GST outputs could include a recommendation to set up a dedicated window in existing facilities, bodies and programmes or encourage existing donors to focus on assisting countries in implementing GST recommendations.

Mechanisms providing a direct link between the GST process and national processes could be useful in ensuring follow-up from the GST in national processes. Some Parties have set-up mechanisms to take into account the outcomes of the GST in domestic processes. For example, in the EU the process of setting and assessing progress towards climate mitigation targets is explicitly linked to the GST process. Similarly, in Fiji, there are provisions in law to communicate new NDCs every five years informed by the GST, while in Luxembourg, revisions or updates to the integrated national energy and climate plan are to be made in line with the GST – see Box 4.3.

#### Box 4.3. Selected mechanisms linking the GST to domestic processes

The European Climate Law includes provisions for the European Commission to propose an intermediate climate target for 2040 within six months of the GST1, taking into account the outcomes of the GST process as well as findings of assessments of EU progress and of national measures. The Commission may also propose to revise the 2040 climate target within six months of GST2. Furthermore, within six months of each GST, the Commission is to submit a report on progress towards the EU's climate targets, the European Climate Law, and its contribution to the long-term goals of the Paris Agreement. These progress reports by the European Commission are to be accompanied by legislative proposals where appropriate (Official Journal of the European Union, 2021<sub>[51]</sub>).

In Fiji, provisions in place in its Climate Change Bill (2021) specify that it will prepare, communicate and maintain successive NDCs every five years that are "informed by the global stocktake...which represents a progression beyond Fiji's then current NDC and reflects Fiji's highest possible ambition..." (Government of Fiji, 2021<sub>[52]</sub>).

In Luxembourg, revisions or updates to the integrated national energy and climate plan are to be made in line with the GST and the timetable provided in Article 14 of the Paris Agreement (Government of Luxembourg, 2020<sup>[53]</sup>).

Source: Authors.

# 5. Leveraging political moments to maintain attention on the GST

Political attention within and beyond the UNFCCC process will be needed to achieve the desired outcomes of the GST. This is acknowledged in Decision 19/CMA.1 which "recognises that other related events within and outside the UNFCCC can contribute to the global stocktake and the implementation of its outcome" (UNFCCC, 2018<sub>[2]</sub>). This section discusses the role of political advocacy in building and maintaining political attention and pressure around the GST. It also identifies potential political moments that could help to shine the spotlight on the GST, strengthening political will behind the process so that recommendations from GST1 are acted upon in 2024-2025 and used to inform and enhance national and international actions. Given the formal time available for discussions during the GST process, leveraging opportunities outside the UNFCCC process will be important for realising the full potential of the GST (Center for Climate and Energy Solutions, 2022<sub>[54]</sub>).

#### 5.1. The role of political advocacy in building momentum

The extent and intensity of political advocacy efforts can be important for establishing an environment that can maintain pressure behind a particular issue. This can be an important factor for increasing climate action by all countries, and can be a particularly relevant consideration for certain countries, such as larger emitters (Charles et al., 2021<sub>[40]</sub>). Previous examples of the role played by global political advocacy include efforts in the lead up to the 2015 COP in Paris when world leaders were invited to announce their climate ambition in advance of the COP at the UN General Assembly and again at the Leaders' Summit at the start of the COP. These efforts helped build political momentum for more ambitious climate action in the lead up to COP21 and contributed to the adoption of the Paris Agreement.

Global political advocacy efforts can have positive impacts on national processes, although outcomes will also be influenced by domestic imperatives and politics as discussed in section 4.1. For example, political advocacy efforts, especially at the level of the United Nations Secretary General (UNSG) and his team as well as the COP Presidency (UNFCCC, n.d.<sub>[55]</sub>), were among the factors influencing the second round of NDCs (new NDCs or updated NDCs) submitted by Parties ahead of COP26. This political advocacy effort included visits by the COP President to different regions, one-on-one meetings with leaders of major emitting countries, outreach by minister-led delegations on behalf of the COP Presidency, calls by the UNSG at multiple fora for all countries to take urgent climate action, and the inclusion of climate change on the agenda at the G20 and the G7.

Parallel discussions in different multi-lateral fora and co-ordinated political advocacy efforts can help to keep an issue on the political agenda and increase media coverage. Over time, co-ordinated advocacy efforts can help to galvanise support behind a particular issue and can lead to tangible outcomes. For example, advocacy efforts involving various actors around the phasing-out of public financing for coal, was critical for maintaining momentum on the issue in the lead up to COP26 and led to a series of announcements including commitments by some countries, banks and financial institutions to end

international coal financing, commitments by some countries to phase out domestic coal power, and the launch of the Powering Past Coal Alliance (UNFCCC, 2021<sup>[56]</sup>).

#### 5.2. Creating an environment that maintains attention on the GST

An environment that maintains attention and pressure around the GST could be created by leaders at all levels continually emphasising the importance of following up on the final GST decision/declaration within a stipulated time frame. It is important that the global community highlight and promote the importance of the process and the need to ensure GST1 outputs are implemented in 2024-2025 to enhance ambition and international co-operation.

Maintaining attention on the GST could be built up through different political moments involving different actors. This could include enhancing linkages with on-going processes within the UNFCCC (e.g. newly established mechanisms and processes in the Glasgow Climate Pact), between the UNFCCC and other international organisations (e.g. World Bank, IMF, FAO, WHO, ICAO, IMO, OECD, IEA), intergovernmental groupings (e.g. G20, G7, MEF, APEC); regional bodies (e.g. UNESCAP, UNECLAC) and non-Party stakeholders (e.g. Marrakech Partnership). Some opportunities to leverage political moments within and outside the UNFCCC process are discussed below.

#### 5.2.1. Leveraging political moments within the UNFCCC

A number of high-level political events to consider the outputs of the GST are already envisaged in Decision 19/CMA.1. In considering the outputs and outcomes of the GST, events at the level of Heads of State and Government could maximise political signalling and help inform national processes to achieve the agreed outcome of the GST.

Beyond these political moments in the GST process, there are a number of parallel processes and events within the UNFCCC. This includes, new work programmes on mitigation and adaptation and the annual high-level ministerial round tables on pre-2030 ambition from COP27. As the COP Presidency and UNFCCC secretariat prepare these activities, they could seek to optimise linkages with the GST to make best use of everything planned within the UNFCCC process to maintain momentum on the GST. For example, GST outputs or recommendations could help to shape the agendas of high-level roundtables and structure the conversation among participants at these events.

Similarly, activities in the new work programmes on mitigation and adaptation could be incorporated into the GST process. For example, these processes could be designed to provide a parallel forum for more in-depth discussions on certain issues (e.g. on sector-specific emission trends, mitigation potentials, technologies, investment patterns, policy options and best practices) which could in turn inform the 'Consideration of outputs' component of the GST and potentially translated into targeted political recommendations. Furthermore, if the work programmes are extended beyond their current timeframe, they could become a platform to carry forward the outcomes of the GST in the 2024-25 period.

Other political moments could be created around the publication of key reports such as the annual updates by the UNFCCC secretariat to the NDC synthesis report which could help to shine a spotlight on the takeup of GST outputs in subsequent NDCs. Other opportunities could be around publications of future IPCC reports which could provide updates on the science and the state of climate impacts to inform future policymaking.

#### 5.2.2. Leveraging political moments outside the UNFCCC

The GST provides a "unique opportunity for advancing and enhancing the conversation between the intergovernmental UNFCCC/Paris Agreement process and the wider landscape of global climate

governance" (Rajamani, 2021<sub>[7]</sub>). Engaging with political levers outside the UNFCCC process could help to promote more effective and ambitious climate action across different multilateral platforms.

Institutions like the UNGA, multilateral fora such as the G20, the G7, MEF, and regional alliances could take the lead in encouraging their members to follow the recommendations from the GST. For example, in the G7 and G20 context where climate change is often a priority of the Presidency, meetings at the ministerial/leaders level could be used to support/endorse the outcomes of the GST process. The GST could be one of the topics on the agenda of the world leaders summit to be convened by the UNSG in 2023. This could serve as a further signal of political support and help to implement the outcomes of the GST. Another option to leverage GST outcomes could be through the HLPF, for example in the context of a review of SDG13 where GST recommendations could be used to inform the review process.

These efforts could be supported and facilitated by the financial mechanism of the UNFCCC as well as by global organisations like the IMF, the World Bank and the MDBs, which could provide support to facilitate the up-take of GST recommendations. This could be accompanied by a global public awareness campaign that spotlights the contributions of countries that take a lead in following up on the GST, engaging civil society and non-Party stakeholders to help maintain attention on the GST.

#### 5.2.3. Leveraging opportunities at multiple levels

At the regional level, events could be organised to translate the collective outputs of the GST and unpack implications of the global outcome of the GST. Such regional events could be organised in co-operation with regional bodies (e.g. UNESCAP, UNECLAC) and alongside relevant events such as the UNFCCC Regional Climate Weeks. For example, events on GST1 have been organised in some Regional Climate Weeks in 2022 (e.g. MENA Climate Week in March 2022). This practice could be continued in other regions and over the 2022-24 period (i.e. during the GST1 process and after it has concluded). Such regional events could be framed around implementation barriers/challenges in translating GST outputs and how to overcome them, and could also provide opportunities to understand what can be done at the regional or national level to help operationalise the GST outcome.

Continued engagement with non-Party stakeholders will be critical for maintaining momentum on the GST given the role of non-Party stakeholders in leveraging technology, initiating partnerships, and carrying forward new or existing initiatives. Enhanced collaboration with non-Party stakeholders could lead to an "ambition loop" whereby non-Party stakeholders and governments raise their ambition and encourage each other in a positive feedback loop. The "Improved Marrakech Partnership 2021-2025" plan envisages close synergies with the GST, with a view to facilitate such an "ambition loop". The Marrakech Partnership is planning various activities under each component of GST1. For example feeding in data from non-Party stakeholders at the regional and global level, identifying non-Party stakeholders to improve understanding of trends and scenarios in key sectors, and encouraging non-Party stakeholders to support governments in achieving GST outcomes (UNFCCC, 2021[20]).

### 6. Conclusions

The Paris Agreement established the global stocktake (GST) as a periodic mechanism to assess collective progress towards achieving the long-term goals of the Agreement. The GST is meant to be a comprehensive exercise, covering the thematic areas of mitigation, adaptation, means of implementation and support. Decision 19/CMA.1 added that the GST process may also take into account the consequences and impacts of response measures, and efforts to avert, minimise and address loss and damage as appropriate. The process is meant to be facilitative, i.e. non-prescriptive, and take into account equity and the best available science in a cross-cutting manner.

The intention of this stocktaking process is to inform subsequent updates of national actions and enhance international co-operation for climate action. Beyond the agreed outcome of the GST set out in the Paris Agreement, there are further tangible and intangible outcomes that could result from the GST and its processes – see Table 6.1 for an overview.

GST outcomes	Description
Agreed outcomes as listed in the	Inform Parties in updating and enhancing national actions and support
Paris Agreement	Enhance international co-operation for climate action
	Provide guidance to Parties on developing LT-LEDS and aligning these with NDC
Further tangible outcomes	Identify knowledge gaps in key areas for the research and scientific community to address
	Refine modalities of subsequent GSTs based on experiences
	Strengthen political willingness to act across all areas of the Paris Agreement
Further intangible outcomes	Increase understanding of available opportunities for addressing the gaps towards the goals of the Paris Agreement
	Improve dialogue among and between Parties and non-Party stakeholders

#### Table 6.1. Unpacking the outcomes of the GST

Source: Authors

How to move from the collective outputs of the GST to the desired outcomes is critical but not straightforward. Key questions that need to be resolved include: What kind of process is needed? What kind of collective outputs could facilitate follow-up by individual Parties and non-Party stakeholders? What enablers could translate collective outputs into national action? How to maintain political momentum so GST recommendations are acted upon over time? Unpacking these issues will be important to make the most of the opportunity offered by the GST to inform and enhance national and international actions and accelerate progress towards the goals of the Paris Agreement.

How the GST process is organised can influence its success in translating outputs into desired outcomes. Previous experiences with international review and assessment processes highlight different modalities that can facilitate subsequent operational action. This includes the engagement of all Parties and non-Party stakeholders throughout the process which can help to strengthen ownership of GST outputs and facilitate follow-up. Other important modalities include the role played by science in informing discussions and decision-making; the format, focus, sequencing and inclusiveness of technical and political discussions; as well as the incorporation of learning-by-doing in the process. Table 6.2 provides some insights on the modalities of previous experiences and how they relate to the GST context.

Modality	Comment
Engagement of Parties in the process	Effective engagement of all Parties in the GST can help to generate a sense of ownership and build trust among participants. This could facilitate the translation of outputs to outcomes as Parties may be more willing to take forward outcomes they have had a strong role in shaping.
Engagement of non-Party stakeholders in the process	Active engagement of non-Party stakeholders throughout the process can facilitate subsequent take-up of outputs and trigger enhanced ambition and action among these actors.
Role played by science in informing discussions and decision-making	Making a link with the latest available science can inform and advance longer-term policy-making. The process can also help to identify knowledge gaps in key areas and strengthen partnerships between experts and organisations to close identified gaps.
Format and organisation of discussions	Well-organised, targeted and iterative discussions at the technical and political levels can influence the formulation of outputs and subsequent follow-up by different actors. Interactive exchanges between participants, allocating sufficient time for discussions, and sharing targeted questions in advance can facilitate efficient discussions.
Separate but sequenced technical and political tracks	Separating the technical assessment phase from the political phase of the GST can help to maintain the integrity of technical recommendations and increase buy-in. At the same time, it is important that the political component effectively captures and engages with conclusions of the technical discussions to provide strong political recommendations that can be carried forward.
Flexibility and learning-by- doing	Maintaining flexibility in the organisation of the process can help to ensure effective engagement by Parties and non- Party stakeholders throughout the process. Similarly, incorporating learning-by-doing will be important so that the modalities of the overall process can be revised/refined on the basis of experience.

#### Table 6.2. Modalities to facilitate the translation of GST outputs to outcomes

#### Source: Authors.

Reaching the intended outcome of the GST will depend on the package of outputs produced, who they target (e.g. Parties, non-Party stakeholders, UNFCCC processes, other relevant bodies), and whether the outputs are followed-up over time. Different types of outputs can play different roles depending on the intended audience and purpose. For example, some outputs are designed to inform high-level, political decision-making, while other outputs are designed for a more technical audience and can help to inform the work of experts, negotiators and researchers among others.

To improve the signalling function of the GST in informing Parties' updates of national actions and enhancing international co-operation, the final package of GST outputs, including their clarity, focus, and the participation of relevant stakeholders in their development, is important. Specific, actionable outputs can facilitate follow-up by different actors. Table 6.2 summarises potential elements the final package of GST outputs could contain.

#### Table 6.3. Potential elements of the final package of GST outputs

Element	Detail	Target actors
Technical information	Technical annexes to the outputs from the 'Technical assessment' component could set out opportunities in different sectors, identify drivers and barriers for accelerating ambition, potential options that could be scaled up and replicated, links to new/existing initiatives such as the Breakthrough Agenda, Climate Action Pathways of the Marrakech Partnership, efforts to take forward sectoral initiatives launched at COP26.	Parties and non- Party stakeholders
	Parties could be "invited" to indicate how subsequent NDC submissions have been "informed" by the outcome of the GST, in line with Article 4.9 of the Paris Agreement and guidance in Decision 4/CMA.1 to facilitate clarity, transparency and understanding of NDCs. There is a precedent in the outcome, inputs and outputs of the Talanoa Dialogue being referenced to in this way in Decision 1/CP.24 (UNFCCC, 2019[48]).	Parties
	Relevant bodies such as the Paris Committee on Capacity-building (PCCB), Technical Expert Groups, Consultative Bodies, etc. could incorporate GST recommendations in their work, e.g. prioritising capacity building to update NDCs, develop LT-LEDS, align NDCs and LT-LEDS, improve monitoring and data collection to inform subsequent GSTs.	Relevant bodies
Recommendations of possible follow-up actions by Parties, UNFCCC processes and relevant bodies	A dedicated window in existing facilities, bodies and programmes could be established to provide support to developing countries in strengthening their enabling environments and capacities to implement GST recommendations. Such support could address different factors depending on the domestic context, e.g. strengthening human capacity and institutional frameworks, addressing gaps in data and technical information, capacity building and public awareness raising activities, etc.	Financial Mechanism of the Convention
	Technical expert reviews of biennial transparency reports (BTRs) could consider whether a Party has reported information on if/how their NDC has been informed by the outcomes of the GST in line with Article 4.9 of the Paris Agreement and the guidance in Decision 4/CMA.1 to facilitate clarity, transparency and understanding of NDCs.	UNFCCC
	Activities under new work programmes on mitigation and adaptation could be designed to complement the GST process. If the work programmes are extended beyond their envisaged timeframe, they could become a platform to carry forward the outcomes of the GST in 2024-25 period.	COP Presidency and UNFCCC
	UNFCCC secretariat could consider preparing a report on lessons learned from the GST1 process to be made available at COP29 to inform preparations for GST2.	UNFCCC
Recommendations of	Regional Climate Weeks could include sessions dedicated to discussing the GST and implications for climate policy implementation at the regional level.	UNFCCC and non- Party stakeholders
possible follow-up actions by non-Party stakeholders	Non-Party stakeholders could incorporate GST recommendations in their work, e.g. to support NDC planning processes in different countries, to implement relevant initiatives such as the Breakthrough Agenda, Climate Action Pathways of the Marrakech Partnership and efforts to take forward sectoral initiatives launched at COP26.	Non-Party stakeholders

Source: Authors

The different elements of the final package of GST outputs outlined in Table 6.3, target different actors and cover different timelines. Some elements could take place during the GST process (e.g. links with work programmes on mitigation and adaptation, sessions at Regional Climate Weeks), while others could take place after the GST has concluded, through processes within the UNFCCC (e.g. via the technical expert reviews of BTRs) or outside (e.g. through non-Party stakeholder initiatives on key sectoral pathways). Including elements such as those outlined in Table 6.3 in the final package of GST outputs could encourage Parties and non-Party stakeholders to consider GST recommendations in their work going forward. It could also help to ensure the GST leads to action on the ground by providing a future marker against which to assess GST1.

The translation of GST outputs formulated at the collective/global level into outcomes that can inform Parties in updating and enhancing national action is not automatic or straightforward. The take-up of international recommendations in national processes depends on various contextual factors/challenges. This includes external factors, e.g. global political advocacy efforts and geo-political considerations, as well as domestic factors, e.g. level of national political commitment and the domestic enabling environment, which could affect a country's ability to operationalise GST recommendations at the national level.

Enabling factors that could help to translate GST outcomes into national action include institutional setup and capacities at the national level and follow-up processes under the UNFCCC. The GST could explore such enabling factors in the 'Consideration of outputs' component and include elements in the final package of outputs to address them. Challenges to translating GST recommendations at the national level and potential enabling factors to address them are summarised in Table 6.4. For example, GST outputs could encourage enhanced support be directed through the UNFCCC Financial Mechanism towards domestic advocacy, communication and education activities to create a more favourable environment for operationalising the GST at the national level.

Having an explicit mechanism to facilitate the translation of international recommendations to the national level can also be important in providing a direct link between the GST and national processes. Some Parties have established mechanisms to take into account the outcomes of the GST in domestic processes. For example, in the EU within six months of GST1, the European Commission is to propose an intermediate climate target for 2040 that takes into account the outcomes of the GST. Assessments of progress towards the EU's climate targets are also linked to future GSTs. Similarly, in Fiji, there are provisions in law to communicate new NDCs every five years informed by the GST, while in Luxembourg, revisions or updates to the integrated national energy and climate plan are to be made in line with the GST.

Challenge	Enabling Factor	Key Actors	Status
Formulation of clear, specific GST output	Effective participation in GST processes by all Parties and relevant non-Party stakeholders Format and sequencing of discussions	All Parties and non-party stakeholders	Developing countries may need support to enable effective participation (as recognised in 19/CMA.1)
<ul> <li>National political commitment</li> <li>Political importance of climate action</li> <li>Stakeholder and societal ownership of climate action</li> </ul>	Advocacy at national level Stakeholder engagement Public education	Senior government officials Civil society stakeholder organisations with external support	Varies among countries Varies among countries and dependent on level of involvement in second round of NDCs
<ul> <li>Weak enabling environments for climate action</li> <li>Institutional frameworks</li> <li>Lack of human capacities</li> <li>Limited data and technical information</li> <li>Limited awareness and understanding</li> </ul>	Support to address specific challenges Access to financial and technical support Capacity building	Senior government officials with external support	Some support available through donor agencies
Requirements to take GST outcomes into account in national processes	Legal obligation	Senior government officials	Done in some countries , e.g. European Union, Fiji, Luxembourg

#### Table 6.4. Summary of contextual challenges and enabling factors to address them

Source: Authors

To maintain momentum behind the GST it will be important to leverage and co-ordinate with other technical and political processes. This includes leveraging parallel processes (e.g. new work programmes on mitigation and adaptation) and events within the UNFCCC (e.g. annual high-level ministerial round tables on pre-2030 ambition). As the COP Presidency and UNFCCC secretariat prepare activities under the new work programmes, they could design them to complement the GST process. For example, activities in the work programmes on mitigation and adaptation could complement the GST process by providing inputs to the 'Technical assessment' component (e.g. if they are structured to produce interim outputs before GST1 concludes). These processes could also provide a parallel forum for more in-depth discussions on certain issues (e.g. on sector-specific emission trends, mitigation potentials, technologies, investment patterns, policy options and best practices) which could in turn inform the 'Consideration of outputs' component of the GST. Furthermore, if the new work programmes are extended beyond their envisaged timeframe, they could become a platform to carry forward GST outcomes in the 2024-25 period

In addition, it will be important to leverage and co-ordinate with relevant political moments beyond the UNFCCC and use different multi-lateral fora and political advocacy efforts to help keep the GST on the political agenda. For example, recommendations of the GST could help to frame discussions at relevant G7 and G20 MEF meetings, at the world leaders summit to be convened by the UNSG in 2023, and the SDG13 review under the High-level Political Forum on Sustainable Development. Such efforts could be further encouraged by the financial mechanism of the UNFCCC and organisations like the IMF, the World Bank and the MDBs, which could provide support to facilitate the take-up of GST recommendations.

There could also be other opportunities to maintain attention on the GST at different levels. For example at the regional level, events could be organised to translate the global outcome to the regional level. Such regional events could be organised in co-operation with regional bodies (e.g. UNESCAP, UNECLAC) and alongside UNFCCC Regional Climate Weeks. At the level of non-Party stakeholders, there could be opportunities to leverage existing/new initiatives and partnerships such as the Marrakech Partnership to facilitate an "ambition loop" between efforts by non-Party stakeholders and governments. Such efforts could be accompanied by a global public awareness campaign that spotlights the contributions of countries that take a lead in implementing GST recommendations.

The GST has a mandate to assess collective progress towards the long-term goals of the Paris Agreement. Given growing recognition of the near-term implementation gap and the need to urgently scale up climate action to meet the goals of the Paris Agreement, GST1 could focus on how to fill the gaps and identify specific opportunities to do so. This would also support the agreed outcome of the GST to inform Parties in "enhancing" their national actions and "enhancing international co-operation". The GST has the potential to engage with a broader audience beyond the UNFCCC negotiating process and could help to structure engagement and discussions on climate action in an impactful way. Realising this potential will depend on a number of factors. This includes the design of the GST process, the clarity and format of outputs, as well as the level and extent of participation by all Parties and non-Party stakeholders throughout the process. Other factors include enabling factors to facilitate follow-up at the national level and how the GST interacts with parallel processes and political moments within the UNFCCC and beyond to ensure operational action follows over time.

## Annex A. Overview of selected international assessment and review processes

#### Table A.1. Overview of selected international assessment and review processes

Process	Purpose	Scope and focus	Timeline	Approach	Outputs	Outcomes
			Review proc	esses within the UNFCCC		
Technical Examination Process (TEP) on Mitigation (TEP- M) and Adaptation (TEP-A)	To explore high-potential mitigation policies, practices and technologies to increase ambition for mitigation action (TEP-M) To identify solutions for enhanced climate change adaptation knowledge and implementation (TEP-A)	Mitigation (themes: renewable energy, energy efficiency, land use, non-CO <sub>2</sub> GHGs, carbon capture, urban environment) Adaptation (themes: reducing vulnerability and mainstreaming adaptation; integrating adaptation in relevant international frameworks, adaptation planning, adaptation finance, education and training to enhance adaptation action) Focus on short-term time horizon (pre-2020 implementation period)	TEP-M: 2014-2020 TEP-A: 2016-2020	Inputs by Parties, NPS and technical experts Technical Expert Meetings (TEM) organised in collaboration with international partners Regional Technical Expert Meetings (RTEMs) organised in collaboration with regional / international partners	Technical papers, policy briefs (summarise best practices in thematic areas based on discussions in TEM, submissions, latest work of IGOs etc.) Summary for Policymakers (overview of challenges in different areas, policy options, key messages and recommendations) Policy options (517 replicable and scalable good practice climate actions by national governments)	Annual platform for expert-driven discussions between Parties and NPS Raise awareness of TEP/UNFCCC among stakeholders RTEMs improved understanding of issues in different regions TEP-A helped identify areas for further technical work on adaptation TEC developed recommendations to COP based on outcomes of TEMs and RTEMs TEP topics helped shape Marrakech Partnership Climate Action Pathways

Process	Purpose	Scope and focus	Timeline	Approach	Outputs	Outcomes
Talanoa Dialogue	To take stock of collective efforts of Parties towards the long-term temperature goal of the PA and to inform the preparation of NDCs	Mitigation (Focus on: Where are we? Where do we want to go? How do we get there?)	2018	Inputs by Parties, Groups of Parties, NPS, technical experts Inter-sessional Talanoa Dialogue to explore three key questions informed by inputs Ministerial roundtables to explore How do we get there?	Summary of online submissions (x2) Summary of discussions at Talanoa Dialogue Talanoa Dialogue Synthesis Report Talanoa Call for Action COP decision inviting Parties to consider outcome, inputs	Process built trust and strengthened links between Parties and NPS
First Periodic Review (FPR) and Structured Expert Dialogue (SED)	To review the adequacy of the long-term global goal in light of the ultimate objective of the Convention To review overall progress toward achieving long- term global goal, including consideration of implementation of commitments under the Convention	Long-term global goal to reduce GHG emissions so as to hold the increase in global average temperature below 2°C above pre-industrial levels	2013-2015	Submissions from Parties, IGOs, IPCC papers/reports Structured expert dialogue (SED) between parties and experts (live streamed and recorded) Supported by joint contact group of SBSTA and SBI	and outputs in preparing NDCs Summary reports of SED meetings (x4) Technical summary report of SED (incl. 10 key messages/points of convergence, cross-references to original sources)	Outcome of FPR is reflected in the PA (i.e. to hold increase in global average temperature to well below 2°C and to pursue efforts to limit temperature increase to 1.5°C) Influence views of some participating negotiators' on the global temperature goal
International Consultation and Analysis (ICA)	To increase transparency of mitigation actions and their effects	Mitigation actions in developing country Parties	2015 - until superseded by ETF	Workshops open to Parties and observers, only Parties can intervene Technical Analysis (TA) of Biennial Update Reports (BURs) Facilitative Sharing of views (FSV) among Parties in workshop	TA summary report Summary record of the FSV	Identify and prioritise capacity- building needs Improve reporting of subsequent BURs Increase capacity of national experts Facilitate peer learning

Unclassified

Process	Purpose	Scope and focus	Timeline	Approach	Outputs	Outcomes
			Review proce	esses beyond the UNFCCC		
Review processes under the Montreal Protocol	To assess control measures concerning the production, import and export of ozone depleting substances on the basis of available scientific, environmental, technical and economic information	Ozone depleting substances Progress of individual activities and collective action	1990 – Every 4 years	Scientific Assessment Panel (SAP) reports data on ozone concentrations Technology and Economic Assessment Panel (TEAP) reports policy relevant technical information. TEAP includes specialised technical options committees Industry stakeholders incl. in TEAP, no other NPS	Annual progress reports by TEAP Special in-depth reports Quadrennial (Technical) Assessment Reports by TEAP and SAP	MOP decisions on substances and phase-out schedules based on SAP recommendations Six amendments to Montreal Protocol based on results of review processes
High Level Political Forum (HLPF)	To follow-up and review the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs)	SDGs	2012 – 4-year cycle	Voluntary inputs from countries, intergovernmental bodies and forums, major groups, other stakeholders, multi-stakeholder partnerships, voluntary commitments Annual ministerial meetings to discuss one theme (Thematic Review) and selected SDGs (SDG Reviews) Leaders meeting every four-years	Quadrennial Global Sustainable Development Reports (scientific perspective) Voluntary National Reports (VNRs) Negotiated political declarations Negotiated ministerial declarations	Global discussion platform maintains momentum behind implementation of 2030 Agenda Improve quality of VNRs (use better data, address all SDGs, consider integrated nature) Preparation of VNRs foster knowledge, learning, capacity building, support establishment of coordination institutions/mechanisms at national level

Notes: NPS: non-Party stakeholders; PA: Paris Agreement.

Source: Authors based on inputs by Zofia Kunysz (OECD) and the following sources:

For TEP-M and TEP-A: (UNFCCC Secretariat, 2015[16]) (UNFCCC, 2021[32]); (UNFCCC, 2020[9])

For TD: (UNFCCC, n.d.[57]); (UNFCCC, 2018[11]); (UNFCCC, 2019[48])

For FPR: (UNFCCC, n.d.<sub>[58]</sub>); (Fischlin, 2016<sub>[26]</sub>); (UNFCCC, n.d.<sub>[27]</sub>); (Doelle, 2016<sub>[59]</sub>); (Milkoreit and Haapala, 2019<sub>[13]</sub>)

For ICA: (UNFCCC, n.d.[60]); (UNFCCC, 2020[61])

For MP: (United Nations, 1987[62]); (Beuermann, Obergassel and Wang-Helmreich, 2020[17])

For HLPF: (United Nations, n.d.<sub>[63]</sub>); (Beuermann, Obergassel and Wang-Helmreich, 2020[17]); (United Nations, 2019[64]).

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With the financial assistance of the European Union