



15 August 2023

Summary report following the third meeting of the technical dialogue of the first global stocktake under the Paris Agreement

Report by the co-facilitators of the technical dialogue

Summary

This report contains a summary of discussions that took place during the third and final meeting of the technical dialogue of the first global stocktake, pursuant to paragraphs 5 and 6 of decision 19/CMA.1. The meeting took place in conjunction with the fifty-eighth sessions of the subsidiary bodies. This summary is based on 65 hours of meeting time between Parties, accredited observer organizations, other non-Party stakeholders, and experts.

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Abbreviations and acronyms

AC	Adaptation Committee
AILAC	Independent Association of Latin America and the Caribbean
AR6	Sixth Assessment Report of the Intergovernmental Panel on Climate Change
CBDR-RC	Common but differentiated responsibilities and respective capabilities
CCS	Carbon capture and storage
CCUS	Carbon capture, usage and storage
CH ₄	Methane
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
CO ₂	Carbon dioxide
COP	Conference of Parties
EbA	Ecosystem-based adaptation
ETF	Enhanced transparency framework
GGA	Global goal on adaptation
GHG	Greenhouse gas
GST	Global stocktake
GST1	First global stocktake
ICI	International cooperative initiative
IGO	Intergovernmental organization
IPCC	Intergovernmental Panel on Climate Change
IPCC WG	IPCC Working Group
IPLCs	Indigenous peoples and local communities
KCI	The Katowice Committee of Experts on the Impacts of the Implementation of Response Measures
LAC	Latin America and the Caribbean
LDCs	Least developed countries
LEG	Least Developed Countries Expert Group
LMDC	Like-minded developing countries
LT-LEDS	Long-term low greenhouse gas emission development strategies
LULUCF	Land-use, land-use change and forestry
MDB	Multilateral development bank
MEL	Monitoring, evaluation and learning
MoI	Means of implementation
MRV	Measurement, reporting and verification
NAO	Non-admitted organization(s)
NAP	National adaptation plan
NbS	Nature-based solutions
NDC	Nationally determined contribution
NDR	Needs determination report
NGO	Non-governmental organization

NPS	Non-Party stakeholder(s)
N ₂ O	Nitrous oxide
SB	Subsidiary body
SBI	Subsidiary Body for Implementation
SBSTA	Subsidiary Body for Scientific and Technological Advice
SCF	Standing Committee on Finance
SDGs	Sustainable Development Goals
SIDS	Small island developing State(s)
SME	Small and medium-sized enterprise
TAP	Technology action plan
TEC	Technology Executive Committee
TD	The 2022–2023 Technical Dialogue of the first global stocktake
TD1.1	The first meeting of the technical dialogue of the first global stocktake
TD1.2	The second meeting of the technical dialogue of the first global stocktake
TD1.3	The third meeting of the technical dialogue of the first global stocktake
TNA	Technology needs assessment
UN	United Nations
UNEP	United Nations Environmental Programme
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollars
WC	World café
WCCB	World Conference Center Bonn
WEOG	Western Europe and Other States Group

I. Introduction

A. Mandate

1. Article 14 of the Paris Agreement established the GST and decision 19/CMA.1¹ laid out its modalities and sources of input. GST1 started at CMA 3 (2021) and will conclude at CMA 5 (2023). Following the first round of inputs and submissions for GST1, the technical assessment with its TD began at SB 56 (June 2022). Three meetings of TD1² were held in conjunction with SB 56, SB 57 and SB 58.

2. The TD facilitated expert consideration of inputs into the GST. Consistent with decision 19/CMA.1, paragraph 6, the TD is to:

(a) Undertake its work through a focused exchange of views, information and ideas in in-session round tables, workshops, or other activities;

(b) Organize its work in line with taking stock of the implementation of the Paris Agreement to assess the collective progress towards achieving its purpose and long-term goals, including under Article 2, paragraph 1(a-c), in the thematic areas of mitigation, adaptation and means of implementation (MoI) and support, noting, in this context, that the GST may take into account, as appropriate, efforts related to its work that:

(i) Address the social and economic consequences and impacts of response measures;

(ii) Avert, minimize and address loss and damage associated with the adverse effects of climate change;

(c) Be facilitated by two co-facilitators, who will be responsible for conducting the dialogue and for preparing a factual synthesis report and other outputs of the technical assessment, with the assistance of the secretariat.

3. Prior to TD1, the Chairs of the SBs, consistent with decision 19/CMA.1:

(d) Prepared a non-paper and, after consulting with Parties, revised it,³ aiming to assist Parties and NPS in their preparation for the first GST. This paper included guiding questions for the information collection and preparation component of the first GST;⁴

(e) Issued a call for inputs for the first GST;⁵

(f) Prepared guiding questions for the technical assessment of the first GST and revised them based on views expressed at informal consultation with Parties held in October 2021 on this matter.⁶

4. In the lead-up to SB 58:

(a) The co-facilitators, Farhan Akhtar and Harald Winkler, prepared and published on 2 May 2023 with the assistance of the secretariat, an information note on the organization of TD1.3, which aimed at assisting Parties and NPS to prepare for the session by outlining the organization of work.⁷ They also conducted a virtual informal consultation with Parties and NPS on 10 May to obtain feedback on their information note.

¹ FCCC/PA/CMA/2018/3/Add.2 available at

https://unfccc.int/sites/default/files/resource/cma2018_3_add2_new_advance.pdf.

² Note that TD1 is used as an abbreviation for the technical dialogue under the first GST and that TD1.1, TD1.2 and TD1.3 refer to its meetings.

³ Available at https://unfccc.int/sites/default/files/resource/Non-paper%20on%20Preparing%20for%20GST1_0.pdf.

⁴ Decision 19/CMA.1, paragraph 7.

⁵ Decision 19/CMA.1, paragraph 19. The call for inputs is available at:

https://unfccc.int/sites/default/files/resource/Call%20for%20inputs%20SB%20Chairs_GST_reminder_Feb23.pdf.

⁶ Available at

https://unfccc.int/sites/default/files/resource/Draft%20GST1_TA%20Guiding%20Questions.pdf.

⁷ Available at <https://unfccc.int/documents/628034>.

(b) The co-facilitators prepared and made available with the assistance of the secretariat the summary report of TD1.2⁸ and held on 12 April 2023 an informal consultation and webinar with Parties and NPS on this report, including on emerging messages.⁹

5. This summary report has been prepared by the co-facilitators, with the assistance of the secretariat, based on the discussions held at TD1.3 during SB 58, as mandated by decision 19/CMA.1, paragraph 31. It summarizes the procedural aspects of TD1.3 (section II) and substantive discussions during the meeting (section III). Additional information, including written statements submitted by participants during TD1.3, are available on a dedicated TD1.3 webpage.¹⁰

B. Objective and general approach to the 2022–2023 technical dialogue of the first global stocktake

6. Like previous TD meetings, TD1.3 was organized to be an open, inclusive, transparent, and facilitative process that allowed Parties to engage and hold discussions with each other, experts, accredited observer organizations, and other NPS.

7. As set out in the information note prepared by the co-facilitators, the aim of TD1.3 was to build on the “what” (TD1.1) and the “how” (TD1.2) by focusing discussions on “what is next”, including how Parties, observer organizations and other NPS could progress in their collective efforts towards the Paris Agreement goals and objectives using the emerging messages contained in the TD1.2 summary report organized in four clusters: mitigation, including response measures; adaptation, including loss and damage; MoI and support; and integrated and holistic approaches.¹¹

8. To achieve the objectives for TD1.3 and building upon the experience and constructive feedback received from participants of TD1.2, multiple formats for engagement were employed, including plenaries, roundtables, a WC session, a poster session and demonstration sessions on a searchable interface/online GST Tool.

9. Across all these formats, a total of 65 hours of meetings and discussions were held over six days at SB58, in a Party-driven process, with participation by NPS. This comprised a four-hour opening plenary, a four-hour closing plenary, around 16 hours of roundtable discussions, 39 hours of discussions across 13 stations at the WC, and a two-hour event to demonstrate and test the GST online tool. The co-facilitators also made themselves available informally to Parties and NPS prior to, during and after TD1.3.

C. Summary of inputs received

10. 133 new submissions were received prior to TD1.3, which are available on the GST information portal.¹² Figure 1 below shows that the largest number of submissions to TD1.3 came from NGOs (78 submissions) followed by 23 submissions made by NAOs. IGOs and UN institutions submitted 10 and 11 inputs, respectively, and 11 came from Parties or Party groups, namely: Norway, Columbia on behalf of AILAC, the United Kingdom, the African Group, LMDC, China, the Russian Federation, Ghana, the United States of America, Japan and Bhutan. Institutions located in WEOG prepared most submissions. Submissions from institutions acting globally, e.g., UN institutions such as the World Health Organization, accounted for 31 inputs. Submissions from the other UN regions, i.e., Africa, Asia, Eastern Europe, and LAC were represented to a lesser extent.

⁸ <https://unfccc.int/documents/627583> .

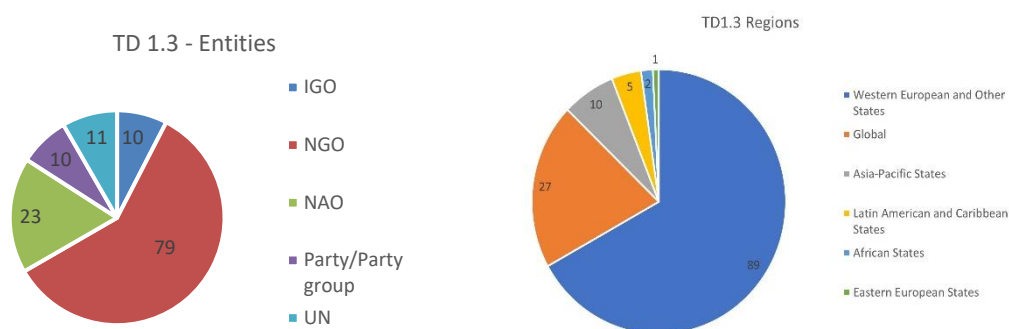
⁹ <https://unfccc.int/event/informal-consultation-and-webinar-on-the-gst-td12-summary-report> .

¹⁰ <https://unfccc.int/topics/global-stocktake/components-of-the-gst/technical-dialogues-of-the-first-global-stocktake/third-meeting-of-the-technical-dialogue-td13-of-the-first-global-stocktake>

¹¹ Available at <https://unfccc.int/documents/627583>.

¹² <https://unfccc.int/topics/global-stocktake/information-portal>.

Figure 1
Type of entities and UN regions from which TD 1.3 submissions were received



Source: UNFCCC

11. Inputs received covered all topics in decision 19/CMA.1, paragraph 6(b), with a focus on mitigation, followed by adaptation and MoI. More than half the submissions directed their input to more than one topic, addressing them in a cross-cutting manner. In 25 of the submissions, the information provided was responding to one or more of the SB Chairs' guiding questions.

12. **Mitigation** was addressed by 74 submissions, stating clearly that the Paris Agreement has inspired broad action and pledges toward fulfilling its goals; however, the current progress is insufficient to meet the Paris Agreement goals and enhanced ambition and climate action are needed, including by the phasing-out of fossil fuels (mentioned in many submissions, some of which also mentioned the importance of considering abatement options for fossil fuel emissions, while others referred to sustainable development benefits), together with extending the use of renewable energy sources, as part of just energy transitions. Transitions in other sectors, such as the transport and building sector were also addressed. Data and methods to assess progress in the mitigation component were specifically referred to in six submissions. With regard to carbon dioxide removal, the importance of the LULUCF sector was stressed, together with a thorough accounting in GHG inventories. The role of non-CO₂ emissions was addressed by several submissions, highlighting that mitigation measures should also target CH₄, N₂O and short-lived climate forcers to reduce near-term global warming and limit temperature overshooting.¹³ **Response measures** were addressed in 15 submissions stressing the need for promoting partnerships and cooperative initiatives to invest in technology, innovation, green jobs and re-skilling to enable inclusive and just solutions.

13. **Adaptation** was addressed by 47 submissions, communicating that more ambitious action is urgently needed. In many submissions, community-driven local adaptation actions, the application of NbS and EbA, the engagement of NPS, as well as international cooperation were described as important enablers. The main barrier for implementation of adaptation actions, according to many submissions, is the availability and accessibility of financing, and the difficulty of measuring the adaptation progress as well as adequacy and effectiveness of adaptation strategies. The development of an effective MEL system for adaptation actions was also seen as important enabling factor for enhanced adaptation. **Loss and damage** was addressed by 17 submissions, highlighting that today's mitigation commitments are insufficient to prevent unmanageable climate impacts, and that synergies between action addressing climate change and disaster risks can be achieved through a comprehensive risk management approach and that more financial and technical support is needed.

14. **MoI** were addressed by 37 submissions pointing to critical gaps in support and MoI. Together with capacity building, technology transfer and financing, the importance of international cooperation was frequently mentioned in submissions as an enabler to achieve

¹³ See B.6.2 of IPCC AR6 SYR available at https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf.

the required fundamental transformations. **Climate finance** was addressed by 35 submissions with a common theme that climate financing must be scaled-up and secured. Some also called the need for a shift of financial flows to be consistent with low GHG emissions and climate-resilient development. Almost all inputs stated that a lack of sufficient climate finance and its accessibility is a major barrier for climate adaptation and mitigation actions. **Capacity-building** was addressed by 16 submissions, which reflected on these needs at various levels, including on human, institutional, educational, and private sector level. **Technologies** were addressed by 14 submissions supporting technology development and transfer to implement climate actions.

15. **Equity**, was a main topic in nine submissions, elaborating on gender justice, equity of indigenous people and marginalized groups, territorial and intergenerational equity, civil society inclusion, with suggestions to address this as part of systems transformations. Some submissions emphasized the importance of ensuring both procedural and outcome equity, in terms of mitigation, including response measures, adaptation, including loss and damage, and MoI. The effective and equitable transition away from fossil fuels was mentioned, along with the principles of Common but Differentiated Responsibilities and Respective Capabilities. The recognition of human rights to realize climate justice was identified by several of these submissions as a key issue in the GST process, as well as in national planning processes.

II. Summary of proceedings of TD 1.3

16. Events held at TD1.3 comprised an opening and closing plenary, four roundtables covering the areas outlined in table 1 below, a WC session with 13 stations, as outlined in table 2 below, a poster session, and a special event to introduce an online GST tool. The events took place from Tuesday, 6 to Tuesday, 13 June 2023. While the events were all held in-person, the plenaries and roundtable discussions were streamed to the SB58 online platform, which was accessible to all registered participants. The opening and closing plenaries were webcast, and on-demand videos can be accessed on the UNFCCC website.¹⁴ Graphic artists recorded the results of the discussions at the WC and all roundtables. Their artwork captures the salient aspects of each event in a universally understandable pictorial format.¹⁵

A. Opening Plenary

17. Following opening remarks from the Chair of the IPCC, Hoesung Lee, and the UNFCCC Executive Secretary, Simon Stiell, the co-facilitators laid out their expectations for this third, and final, meeting of the TD1 and then opened the floor for statements, first from groups of Parties, then Parties and accredited observer organizations.

B. Roundtables

18. The co-facilitators facilitated four roundtables and provided a brief introduction of the relevant emerging messages from the reflections section of the TD1.2 at the start of each roundtable (see table 1 below). These messages, drawn from discussions at TD1.1 and 1.2 served to guide the discussions between invited groups of Parties, Parties, observer organizations and other NPS at the TD1.3 roundtables.

¹⁴ https://unfccc.int/SB58/schedule?access=All&field_event_has_webcast_value=1&amount-time=23%3A59%20h&field_start_datetime=&field_end_datetime=&search=&field_event_datetime_value_1=1.

¹⁵ <https://unfccc.int/topics/global-stocktake/components-of-the-gst/technical-dialogue-of-the-first-global-stocktake>. The pictorial format facilitates understanding, but does not inform the synthesis report by the co-facilitators.

Table 1

Emerging messages drawn from the TD1.2 Summary Report and presented at TD1.3

<i>Roundtable</i>	<i>Emerging messages</i>
1: Mitigation, including response measures	<ol style="list-style-type: none"> 1. Emissions are not in line with modelled global mitigation pathways consistent with the temperature goal of the Paris Agreement, and there is a rapidly narrowing window to raise ambition and implement existing commitments to limit warming to 1.5 °C above pre-industrial levels. 2. Much more ambition is needed in domestic mitigation measures in NDCs to realize existing and emerging opportunities, in order to halve global emissions by 2030, reach net zero CO₂ emissions by 2050 globally, and promote equitable sharing of efforts across countries. 3. Achieving net zero CO₂ and GHG emissions requires systemic transformations across all sectors, phasing out high-emission systems and technologies while scaling up low- and zero-emission alternatives, and implementing both supply- and demand-side measures. 4. Increasing the consideration of equity can enable greater ambition in mitigation, with tailored approaches addressing different contexts and the impacts of response measures.
2: Adaptation, including loss and damage	<ol style="list-style-type: none"> 1. As climate change threatens all countries and communities around the world, increased adaptation action, as well as enhanced efforts to avert, minimize and address loss and damage are urgently needed to reduce and respond to increasing impacts, particularly for those who are least prepared for change and least able to recover after disasters. 2. Collectively, there is increasing ambition in plans and commitments for adaptation, but there also remains an implementation gap, in that plans are implemented inadequately, unevenly, and incrementally. 3. When adaptation is informed and driven by local contexts and priorities, both the adequacy and the effectiveness of adaptation action and support can be enhanced and can promote transformational adaptation. 4. Support for adaptation and funding arrangements for averting, minimizing, and addressing loss and damage can be rapidly scaled-up from expanded and innovative sources, and financial flows can be aligned with climate-resilient development to meet needs in different contexts.
3: Means of Implementation	<ol style="list-style-type: none"> 1. Scaling-up and aligning global financial flows for climate action in line with the Paris Agreement goals entails unlocking trillions of dollars to support the global transition, critically through the strategic use of public international finance, which remains a prime enabler for action in developing countries. 2. Achieving systemic transformations in pursuit of the 1.5 °C degree goal requires rapid deployment and adoption of cleaner technologies and accelerated innovation and development of new technologies, with growing access to these supported by appropriate enabling frameworks and international cooperation. 3. Capacity-building is foundational to achieve broad-reaching and sustained climate action and requires country-led and needs-based effective cooperation to ensure capacities are enhanced and retained over time at all levels.
4: Integrated and holistic approaches	<ol style="list-style-type: none"> 1. The Convention and the Paris Agreement are processes that set norms, which drive policy outcomes to increase international cooperation on climate, within and beyond the processes themselves. 2. Governments should implement integrated policy packages that mainstream climate resilience and low GHG development and strengthen the global response to the threat of climate change in the context of sustainable development and efforts to eradicate poverty. 3. Systemic transformations open huge opportunities but are disruptive. A focus on inclusion and equity can increase ambition in climate action and support when it builds trust and solidarity into an upward spiral of ambition and climate action. 4. Non-Party stakeholder actions can strengthen efforts for systemic transformations. 5. While nations continue to pursue efforts to limit the global temperature increase to 1.5 °C above pre-industrial levels, and overshoot increases risks to people and planet, we need to plan pragmatically for scenarios of temporary overshoot.

C. World Café session

19. The WC session allowed for the interactive and dynamic engagement of a wide range of stakeholders in an informal setting on a variety of topics. The 13 stations (see table 2) were split into two sets, with the first set (1-6) comprising “advisory group” stations, which focused on unpacking the specific contexts facing governmental and non-governmental actors as they pursue actions in support of the Paris Agreement goals. The second set (7 to 13) comprised new topics, which focused on a limited set of issues where the need for further discussions had been identified in previous TD meetings. The co-facilitators moderated the overall WC session, with assistance of the secretariat, and all stations were assisted by facilitators and experts, who had prepared station notes to serve as a guide to the discussions.¹⁶ Participants moved from station to station for the five phases of the WC, each lasting around 35 minutes.

Table 2

Overview of the World Café stations

<i>World Café</i>	<i>Topic</i>	<i>Expert</i>	<i>Facilitator</i>
1	Local leader of a rapidly growing coastal urban centre	Asih Budiati	Debra Roberts
2	Leader of an indigenous community	Grace Balawag	Gunn-Britt Retter
3	President of a multilateral development bank	Preety Bhandari	Chizuru Aoki
4	Community organizer for a youth environmental non-governmental organization	Jingjing Gao	Sonja Klinsky
5	Chair of the board of a multinational industrial corporation	Stefan Seidel	Andrew Prag
6	Local farmer or other food producer	Maria Sanz Sanchez	Sophia Boehm
7	What are the implications of global energy mixes by source in 2030/2035/2050?	Jim Skea	Youba Sokona
8	What is the role of reducing non-CO ₂ emissions in achieving the long-term global goal on mitigation?	Andy Reisinger	Kate Calvin
9	Reviewing the overall progress made in achieving the global goal on adaptation (Art 7.14d)	Anand Patwardhan	Anne Hammill
10	How can domestic policies facilitated by international cooperation address slow-onset events, which may result in loss and damage?	Anna Pirani	Animesh Kumar
11	How can our collective experiences with the preparation and communication of NDCs inform Parties in the updating and enhancing of their future NDCs? How can we support capacities for more ambitious NDCs in line with previous CMA decisions and guidance?	Iniobong Abiola Awe	Pieter Pauw
12	How to enable the transformation of the financial system and its structures and processes, engaging governments, central banks, commercial banks, institutional investors and other financial actors in order to meet the Paris Agreement goals?	Joe Feyertag	Sandra Guzman
13	How can we better understand how much NPS and international cooperative initiatives have contributed to collective progress on Paris Agreement goals and how can the accountability of	Casey Cronin	Marcia Toledo

¹⁶ See <https://unfccc.int/event/gst-td-world-cafe>.

<i>World Café</i>	<i>Topic</i>	<i>Expert</i>	<i>Facilitator</i>
	pledges be promoted, and rigorous accounting be ensured?		

D. Poster session

20. The GST TD1.3 poster session featured 48 posters, based on submissions by participants, in an exhibition format. It was launched by the co-facilitators in the WCCB lobby. All posters can be viewed on the GST webpage.¹⁷ About two-thirds of the posters were submitted by civil society organisations; three were submitted by groups of Parties or Parties, four by IGOs, some from industry associations, and some from organisations specifically focusing on data. Of the latter, some posters included examples of technical annexes, and one poster highlighted a search interface (see section E. below), as two means by which participants might find examples of good practices.

E. GST search interface

21. An awareness raising and testing event was held to introduce an online search interface – the GST explorer, developed by Climate Policy Radar as a voluntary contribution to the GST.¹⁸ The co-facilitators provided a brief introduction, followed by an overview of the search interface given by a representative from Climate Policy Radar.

22. The interface enables users to swiftly search and analyse the entirety of the GST inputs, comprising over 1,600 documents and 170,000 pages, through a free-text search or topical filters, and thus it provides transparent access information on good practices as submitted by participants. Documents in various languages can also be translated into English and other United Nations languages. The search interface enables improved access and usability to the extensive content submitted by Parties and NPS and serves as a dynamic resource to access information related to good practices, lessons learned, and proposed climate action solutions in the thematic areas of the GST/TD.

23. Participants were given the chance to test the search interface during the event and to provide feedback directly to the developers, which was overwhelmingly positive.

F. Closing Plenary

24. The closing plenary was convened by the co-facilitators and featured closing remarks by the SBI Chair, Nabeel Munir, and the SBSTA Chair Harry Vreuls. The co-facilitators presented a summary of the discussions arising from the TD1.3 events and subsequently opened the floor for closing statements, first from groups of Parties, then Parties and then alternating between Parties and accredited observer organizations.

III. Summary of the discussions at TD 1.3

A. Opening plenary

25. Opening remarks from the IPCC Chair, Hoesung Lee focused on the recently published synthesis report of the AR6, which had been presented during a special event and addresses opportunities for enhanced action and support. He stated that recent climate changes are widespread, and that global warming has and will continue harming people and places, with those contributing the least experiencing the most negative impacts. There was a message of hope however, with the synthesis report pointing to multiple, available, feasible

¹⁷ See <https://unfccc.int/event/gst-td-poster-session>. Further examples of a technical annex were received after TD1.3, which are available on the GST information portal.

¹⁸ <https://gst1.org/explorer/>.

and effective options across all sectors to reduce GHG emissions and adapt to climate change.¹⁹

26. In his opening remarks, the Executive Secretary, Simon Stiell, stated that the GST at COP 28 must be the turning point to get on track to limit warming to 1.5°C and stressed the value of TD1.3 laying the ground for an ambitious response. He mentioned the importance of the technical assessment to deliver key messages to the political phase of the stocktake, so that all Parties can come to COP 28 ready to ratchet up ambition and inform both Parties and NPS on how to course-correct and thus move towards achieving the Paris Agreement goals.

27. The co-facilitators reiterated that the GST was a learning by doing process to assess collective progress, in light of equity and the best available science and enable more collective action and support; and subsequently inform greater levels of ambition. The co-facilitators acknowledged that, while there has been significant collective progress, it remains inadequate towards achieving the purpose of the Paris Agreement and its long-term goals. The co-facilitators noted that progress had varied across topics, and tasked participants with identifying what more could be done jointly and severally. The co-facilitators outlined their reflections contained in the TD1.2 summary report and stated that these reflections encapsulated the emerging messages from the discussions to date. They are not final and that participants' feedback on them would be a central focus of TD1.3. The co-facilitators also indicated that the TD Synthesis Report and the three TD summary reports will form a comprehensive record of the technical assessment.

28. Many participants thanked the co-facilitators for their excellent efforts in organizing the work of the TD1, and for their introduction of innovative practises. Additionally, several participants voiced their appreciation of NPS contributions, calling for their continued participation in the GST process, and particularly recognizing the importance of including indigenous peoples in this process.

29. Many participants called for the GST to focus on collective progress, recognizing that climate change will become a matter of life and death in all regions, and emphasizing the need for a holistic, balanced, integrated and facilitative approach, which is both backward and forward looking to assess progress made as well as implementation and ambition gaps and challenges. According to some participants, the backward-looking aspects should include pre-2020 commitments to reflect on those implementation and ambition gaps with a view to informing future action. It was suggested by some participants to develop a GST transformation roadmap, ensuring the highest possible ambition from everyone, while leaving no one behind, equity, inclusion, enhanced partnerships, sustainable development, poverty eradication and enhancing transparency.

30. Many participants supported the co-facilitators' emerging key messages and stressed that further improvements be made to better articulate key findings, identifying implementation and ambition gaps and opportunities. There was a call for a technical assessment that was as objective and unbiased as possible, accommodating diverse national contexts, augmenting international cooperation in the interest of global action, and ensuring transparency.

31. The co-facilitators noted two tools that could enable Parties and NPS to make use of the very large volume of information from the GST information portal: a possible technical annex to capture good practices and lessons learned as well as a search interface to find such practices and lessons. The co-facilitators stressed that any such tools would be entirely voluntary and non-prescriptive. Many participants expressed support for a technical annex. However, some participants highlighted challenges associated with delivering a fully comprehensive document that would contain good practices and lessons learned arising out of the technical assessment phase, given that such document will involve selection and might lose sight of national contexts. The development of a search interface was suggested by many to be a sufficient alternative.

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https://unfccc.int/sites/default/files/resource/DRAFT_Chair_remarks_GSTTD_060623_fin%20%2802%29.pdf

32. Some participants raised concerns that previous summary reports failed to capture some unique challenges and circumstances that some regions are facing. There were also calls for benchmarking of the long-term Paris Agreement goals when assessing collective progress.

33. Parties expressed their expectation for a robust and comprehensive gathering of information and reflection in the factual synthesis report, which should be fit for the political phase to facilitate the development of a strong, meaningful, and substantive CMA decision and/or declaration.

34. A participant made a strong call for an ambitious outcome of the GST with immediate and sustained actions in the next decade to keep the 1.5°C target within reach, with a view to transforming systems and sectors and making financial flows consistent with the Paris Agreement goals to ensure successful implementation.

B. Mitigation, including response measures

1. Roundtable on mitigation, including response measures

35. Many participants of the roundtable emphasized that the key messages emerging from the GST need to reflect the sense of urgency, as indicated by the science. Some of the participants were of the view that this urgency cannot come at the cost of human rights nor the right of indigenous peoples. Many participants acknowledged that while the GST has made it clear that significant progress has been made towards the goals of the Paris Agreement, current collective progress is inadequate to meet these long-term goals.

36. Some participants stressed that some impacts of climate change will be irreversible at temperature increases beyond 1.5°C, and that some countries are already experiencing such irreversible impacts due to extreme events.

37. Various views were expressed about global modelled mitigation pathways consistent with the global temperature goal, as laid out by the IPCC AR6. Some participants were of the view that while global mitigation pathways may be consistent with the global temperature goal, they should also acknowledge latest available science and consider principles of equity, inclusivity, justice and CBDR-RC and the context of sustainable development as well as efforts to eradicate poverty, and that pathways may be different for different groups of countries.

38. Many participants highlighted the importance of aligning NDCs and LT-LEDS with pathways towards 1.5°C laid out by the IPCC AR6, indicating that current commitments fall short. Other participants highlighted the importance of alignment of near-term mitigation targets with net zero emissions in the long-term, as part of just transitions. Other participants were of the view that Parties whose emissions matter to limit warming to 1.5C should move towards economy-wide targets and including all gases and emphasized that the GST should provide clear guidance to Parties to inform their next NDCs to be communicated in 2025, as well as further NDCs. Others indicated this form of mitigation targets should apply to all Parties. Yet others highlighted that NDCs are nationally determined.

39. Many participants cited the IPCC AR6 which indicated that a reduction of 43 per cent in global GHG emissions below 2019 levels by 2030 and a reduction of 60 per cent in global GHG emissions below 2019 by 2035 are required to limit global warming to 1.5 °C (50 per cent probability) with limited or no overshoot. These participants further cited that, for a 50 per cent chance of limiting global warming to 1.5°C with limited to no overshoot and a 67 per cent chance to remain below 2 °C,²⁰ global GHG emissions would need to peak between 2020 and at the latest before 2025. While global peaking of GHG emissions must occur as soon as possible, many participants highlighted that the Paris Agreement recognises that peaking will take longer for developing country Parties.

40. Many participants further highlighted that according to the IPCC, net zero CO₂ emissions need to be achieved globally in the early 2050s to stabilize the global average

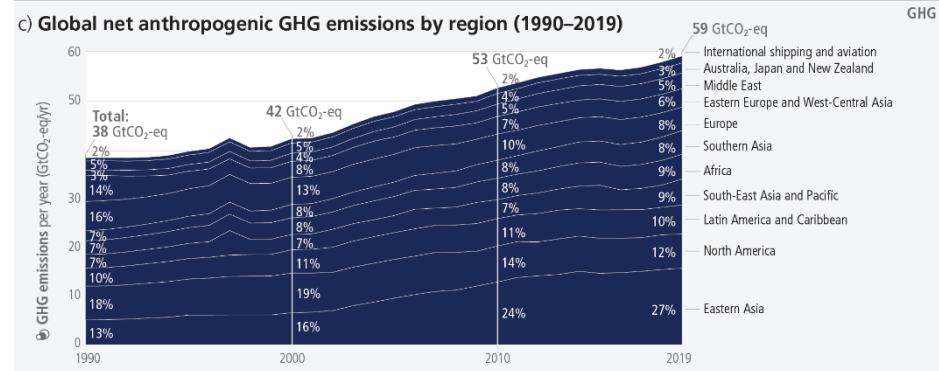
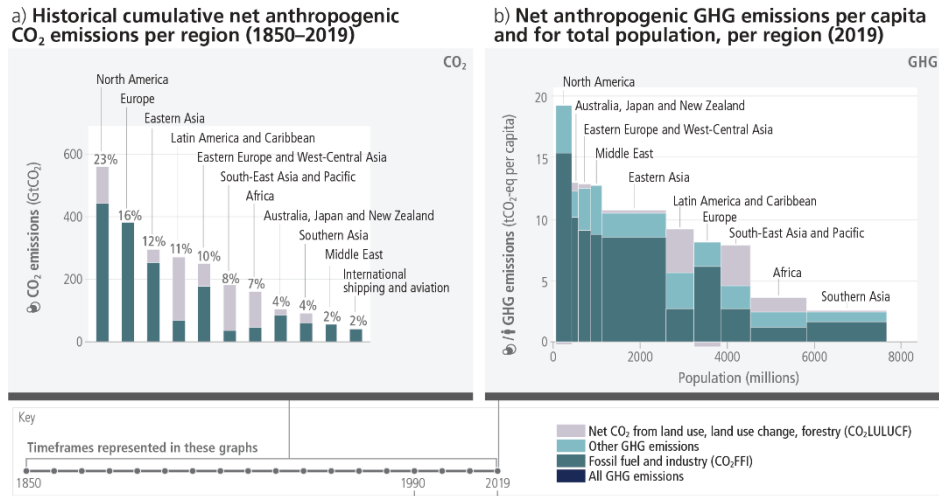
²⁰ In modelled pathways that assume immediate action.

temperature over the long term to 1.5°C. However, some participants highlighted that these trajectories towards net zero emissions should be differentiated for different countries and suggested that developed country Parties should strive to achieve net zero emissions significantly before 2050 for developing country Parties to have equitable access to the remaining carbon budget. Others stressed that the greatest opportunities to reduce emissions arise where emissions are largest and that near term decisions this decade on planned fossil fuel infrastructure have long-term implications on the ability to limit warming to 1.5C.

41. Participants expressed differing views on the topic of pre-2020 ambition and implementation, in relation to mitigation. Some participants raised the importance of addressing the pre-2020 period to allow for a more holistic understanding of historical responsibility, historical emissions, and the current emission and implementation gaps to inform more collective progress towards the long-term goals of the Paris Agreement. These participants stressed that a consideration of pre-2020 ambition and implementation could allow for reflection on the operationalisation of equity and just transition in the implementation of the Paris Agreement. A participant noted that past development and emissions occurred when alternatives were not available. Several called for a more forward-looking focus, highlighting the opportunities and need for rapid and ambitious action by all countries to meet the objectives of the Paris Agreement. While acknowledging that more needs to be done by all and that lessons could be drawn from the past, they cautioned against using historical responsibility as an argument minimizing ambition in future actions. Ensuing discussions indicated that while no common definition of equity was agreed by all, equity was being raised by all to inform future action with the aim to increase ambition. Several participants referred to specific numbers and figures from the IPCC AR6 assessment and highlighted the regional contributions to global emissions and how these have changed over time (Figure 2).

Figure 2
Historical cumulative and regional emissions trends

Emissions have grown in most regions but are distributed unevenly, both in the present day and cumulatively since 1850



d) Regional indicators (2019) and regional production vs consumption accounting (2018)

	Africa	Australia, Japan, New Zealand	Eastern Asia	Eastern Europe, West-Central Asia	Europe	Latin America and Caribbean	Middle East	North America	South-East Asia and Pacific	Southern Asia
Population (million persons, 2019)	1292	157	1471	291	620	646	252	366	674	1836
GDP per capita (USD1000 _{pp} 2017 per person) ¹	5.0	43	17	20	43	15	20	61	12	6.2
Net GHG 2019 ² (production basis)										
GHG emissions intensity (tCO ₂ -eq / USD1000 _{pp} 2017)	0.78	0.30	0.62	0.64	0.18	0.61	0.64	0.31	0.65	0.42
GHG per capita (tCO ₂ -eq per person)	3.9	13	11	13	7.8	9.2	13	19	7.9	2.6
CO ₂ FFI, 2018, per person										
Production-based emissions (tCO ₂ FFI per person, based on 2018 data)	1.2	10	8.4	9.2	6.5	2.8	8.7	16	2.6	1.6
Consumption-based emissions (tCO ₂ FFI per person, based on 2018 data)	0.84	11	6.7	6.2	7.8	2.8	7.6	17	2.5	1.5

¹ GDP per capita in 2019 in USD2017 currency purchasing power basis.
² Includes CO₂FFI, CO₂LULUCF and Other GHGs, excluding international aviation and shipping.
The regional groupings used in this figure are for statistical purposes only and are described in WGIII Annex II, Part I.

Source: IPCC SYR AR6, figure 2.2 See <https://www.ipcc.ch/report/ar6/syr/figures/figure-2-2>

42. Several participants raised the subject of the implementation gap and highlighted the large difference between enacted policies and actions and the level of action expressed in NDCs and required by the science. Some participants emphasized that developed countries should take the lead in bridging this gap and provide increased financial, capacity-building, and technological support to developing countries. A participant pointed out that part of this ambition gap is that some Parties are taking on NDC commitments which are aligned with pathways to limit warming to the Paris Agreement temperature goals which will require efforts well beyond their current policies while others are not. Another participant indicated the income per capita of developed countries was around 20,000-30,000 USD (Gross Domestic Product per capita) when they peaked and would rise higher at target years for net zero emissions, while income per capita of developing countries are significantly lower. Several participants referred to aligning NDCs with long-term low GHG emissions strategies.

Many participants highlighted the need for enhanced actions in domestic mitigation measures and enhance transparency on domestic mitigation actions.

43. Some participants stressed the importance of including in the GST emissions from shipping and international aviation and their contributions to global emissions, in the context of available opportunities for emission reduction in these sectors through international cooperation.

44. Many participants also stressed the importance of considering mitigation and climate action in the context of sustainable development and co-benefits, including taking into account the synergies and trade-offs of climate action and sustainable development. For example, some Parties highlighted the co-benefits that arise from the deployment of renewable energy such as creation of jobs, improved air quality and health. Several participants noted that the IPCC AR6 assessment has provided information on synergies and trade-offs with many SDGs of mitigation options (see figure 3 below).

45. Many participants highlighted that emission reduction and mitigation pathways should be aligned with the provision of financial, technological, and capacity-building support to developing countries Parties. Several participants highlighted the importance of ensuring access to MoI, particularly finance, and the need for international support for implementation of climate action, for countries facing capacity constraints. including for supporting the implementation of NDCs in developing countries and assessing the conditions for implementation. They mentioned the need for support to implement conditional elements of NDCs of developing countries, thereby enabling more ambition in mitigation, as well as support for adaptation and loss and damage, including for those most vulnerable to climate change.

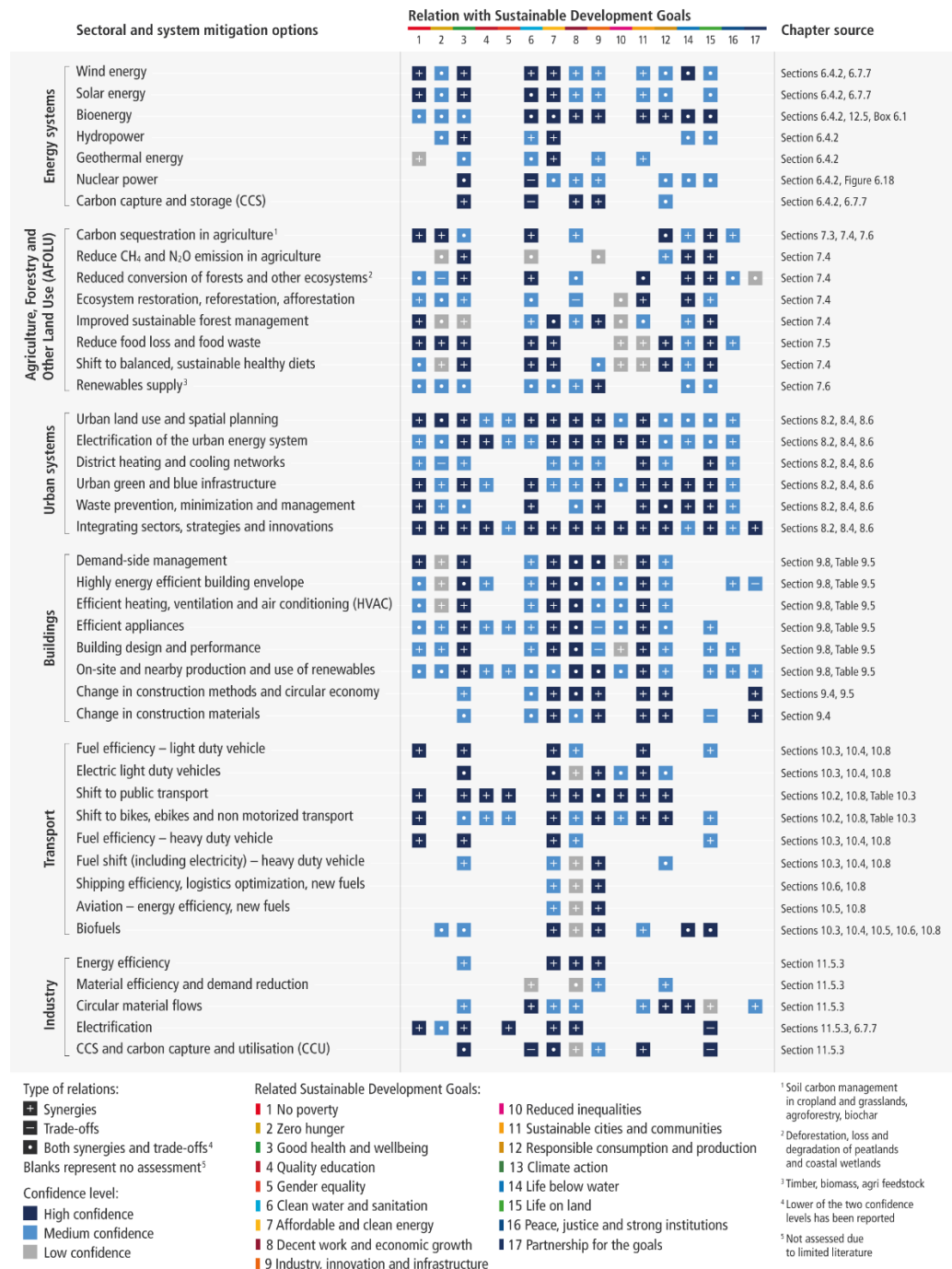
46. A participant suggested that the lifecycle emissions associated with renewable technologies and the role of mining in the context of renewable energy as well as electric vehicles should be further assessed.²¹

47. Regarding international cooperation in the context of Art.6 of the Paris Agreement (cooperative approaches), some participants highlighted the opportunities enabled for countries to work together to achieve greater emission reductions as well as the potential for aligning financial flows with low-emission development. Moreover, one participant stressed the need for capacity-building support for countries and stakeholders implementing Art.6 mechanisms to deepen emission reductions worldwide.

²¹ Note that according to the IPCC, electric vehicles powered by low-GHG emissions electricity have large potential to reduce land-based transport GHG emissions, on a life cycle basis (IPCC AR6 SYR C.8.4) and that life cycle GHG emissions were assessed by the IPCC in cross-sectoral perspectives (WGIII contribution).

Figure 3
Synergies and trade-offs of mitigation options

Mitigation options have synergies with many Sustainable Development Goals, but some options can also have trade-offs. The synergies and trade-offs vary dependent on context and scale.



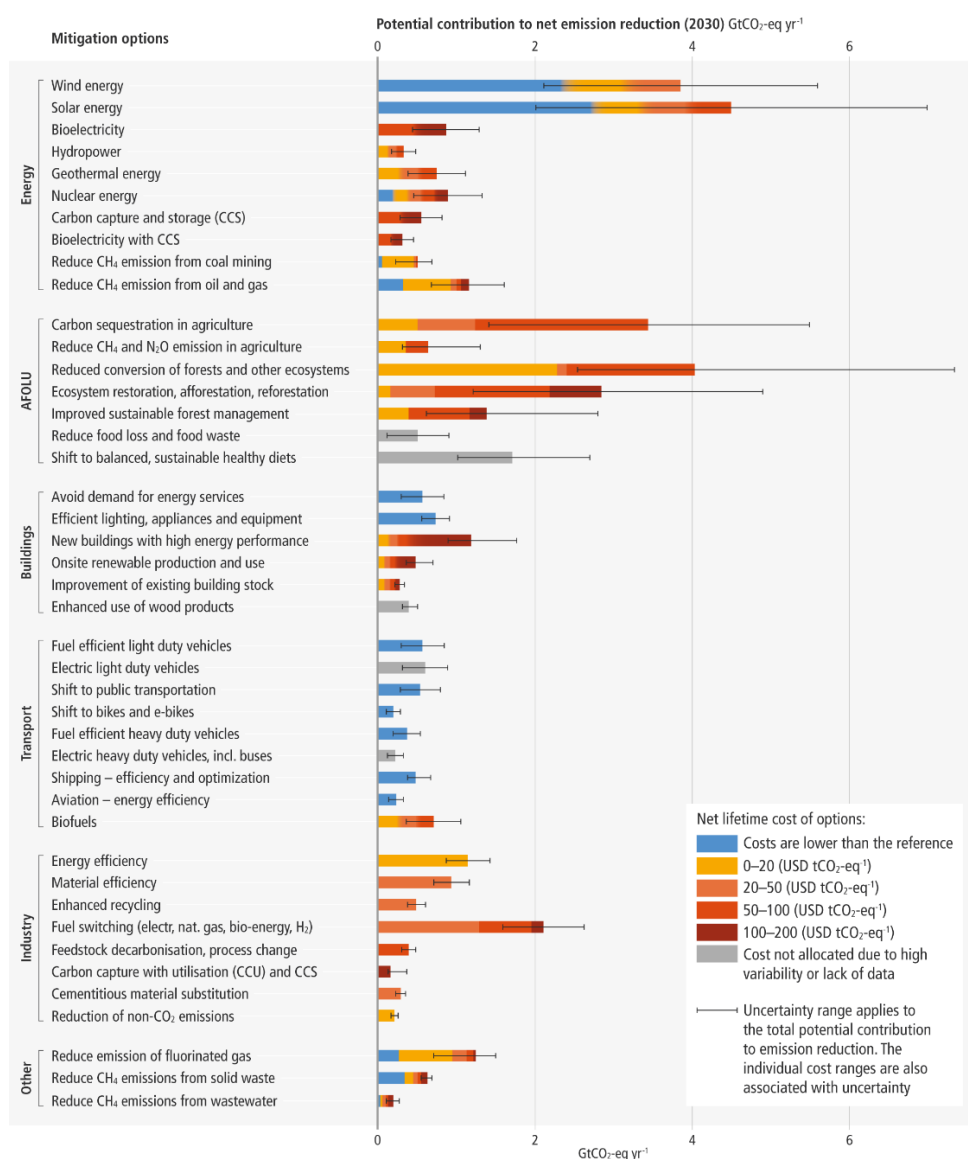
Source: IPCC WGIII AR6, figure SPM.8 see <https://www.ipcc.ch/report/ar6/wg3/figures/summary-for-policymakers/figure-spm-8/>

48. Throughout the discussion, participants shared various opportunities and good practices in relation to mitigation. Examples included significant opportunities for scaling renewables globally given their cost competitive nature and rapid deployment capabilities; enablers for achieving renewable energy goals included streamlining permitting schemes, implementing sustainability and technology standards, investing in clean energy solutions for grids, and designing electricity markets to incentivize flexibility and clean power

procurement; green hydrogen and ammonia technologies; a global renewables target for 2030 was also proposed; enhancement of international and domestic financial flows towards low emissions development; innovative financial mechanisms for mitigation; protection of ecosystems and biodiversity as an integral part of the transformation towards decarbonization; demand-side measures, including energy efficiency measures and targets; systemic transformation across all sectors, phase out of all unabated fossil fuels; phase out of inefficient fossil fuel subsidies; just transitions; increased accountability of climate action; debt cancellation; increased engagement of the private sector; addressing non-CO₂ gases; among others. Several participants noted that the IPCC AR6 assessment has provided information on the relative potential and costs of mitigation options and that these vary by context and scale (see figure 4).

Figure 4
Relative potential and costs of mitigation options

Many options available now in all sectors are estimated to offer substantial potential to reduce net emissions by 2030. Relative potentials and costs will vary across countries and in the longer term compared to 2030.



Source: IPCC WGIII AR6, figure SPM.7 see <https://www.ipcc.ch/report/ar6/wg3/figures/summary-for-policymakers/figure-spm-7>

49. Many participants highlighted that the GST could provide concrete, implementable, and specific recommendations. Many participants highlighted various additional themes,

guidance or considerations that should be reflected in the outcomes of the GST, including: how Parties can align their future NDCs, and long-term strategies with 1.5°C pathways (some also noted the need to respect the principles laid out in the Paris Agreement in this regard); guidance on establishing new targets dependent on national circumstances, including a global renewables target for 2030, timeframes to phase out all unabated fossil fuels; helping develop voluntary targets for non-state actors; highlighting the synergies between enhanced mitigation action and the SDGs; options for closing the ambition and implementation gaps and with a recognition of considerations of equity within these options; reflections on the need for systemic transformations across all sectors of the economy; taking stock of pre-2020 action; and taking forward the outcomes of the GST.

50. Some participants also highlighted the need to look closer into the linkages between the GST and other processes under the UNFCCC and the Paris Agreement, such as the Sharm el-Sheikh Mitigation Ambition and Implementation Work Programme, Article 6, LT-LEDS, the consideration of further guidance on NDC features in 2024 (Decision 4/CMA.1, paragraphs 19-20). Many participants also emphasized that the GST should provide clear guidance to Parties to inform their next NDCs to be communicated by March 2025.

51. Some participants were of the view that there is still a lack of modelling scenarios and understanding of the impacts of climate actions on jobs and economic systems. Understanding such socio-economic impacts would help to inform the upscaled training for new green jobs.

52. Other Parties highlighted just transitions as key enablers for ambitious actions and sustainable development. Yet other Parties emphasises challenges pertaining to integration of the concept of sustainable development and just transitions into national development agenda. A Party stressed the need to strengthen the capacity and provide necessary tools to undertake just energy transition.

53. Participants highlighted several options to address the impacts of response measures, which are implemented differently across contexts and national circumstances. Such options include economic diversification; circular carbon economy; green industrialization; the greening of supply chains; training people in sector-specific skills; diversifying to related and unrelated products; and the contribution of sectors such as tourism, aviation and shipping. Some participants pointed out that, if not planned properly, diversification policies purely for economic benefit may put economies, livelihoods and lives at risk in a changing climate.

54. On just transitions, some participants emphasised that it need to create decent work and quality jobs, protect and support workers and communities that may face job losses or economic challenges due to the phasing out of carbon-intensive industries. Others highlighted that incorporating principles of just transitions can ensure inclusiveness, social protection as well as the fair distribution of costs and benefits of the implementation of response measures among various stakeholders, particularly communities most affected by transitions. Yet other participants highlighted that just transitions can be enabled by finding new and creative ways for countries to maximize the potential development outcomes of such transitions across a range of industrial and geographical areas and scales. One of the challenges is reskilling, retraining, and ensuring access to new jobs.

55. A participant sought clarifications on how decision 19/CMA.1, paragraph 32 had been addressed. The co-facilitators note that a synthesis report had been prepared, that, at the CMA at its third session, recalling decisions 19/CMA.1 and 4/CMA.2, had requested the KCI to submit by February 2022, with the assistance of the secretariat, a synthesis report reflecting the relevant work of the forum on the impact of the implementation of response measures (hereinafter referred to as the forum) and its KCI as an input to the technical assessment component of the first GST. Participants interested in this matter may wish to read this synthesis report, and the addendum published in April 2022,²² for further details. This synthesis report contains relevant information on the work under the forum, and deals with co-benefits of economics diversification, mitigation co-benefits resulting from adaptation actions and economic diversification plans, and more. The co-facilitators note that these

²² See <https://unfccc.int/global-stocktake-secretariat-synthesis-reports-and-addendas>.

reports as well as relevant submissions on this matter constituted input to the technical dialogue.

2. World Café

56. Note that, to simplify the reading of this report the co-facilitators consolidated the discussions at the thematic areas and integrated approaches round tables and the relevant world café stations under their respective headings, while recognizing that the issues addressed at some stations could be relevant for more than one thematic area.

(a) Station 7: What are the implications of global energy mixes by source in 2030/2035/2050?

57. Participants mentioned various options to decarbonize the energy sector including renewable energy sources, hydrogen, ammonia, biomass, nuclear, fossil fuel with CCUS, and natural gas as a transition fuel to renewable energy. Some participants mentioned costs of mitigation options for the energy sector vary by national circumstances. While the contribution of WGIII to AR6 shows that wind and solar energy have the largest potential to reduce emissions with a lower cost at a global level, these may differ by context.

58. Many participants shared national middle and long-term targets for the share of renewable energy in energy supply, particularly in electricity generation, including for 2030, 2035 and 2050.

59. Some participants highlighted technical, economic and financial barriers and challenges in achieving a high share of renewable energy in energy supply such as the massive scale of investment needed including for upgrading infrastructure (e.g. grid expansion) and battery storage; lack of skilled workforce with technical capacity in installing and maintaining renewable energy systems and battery storage; negative impacts of climate change on the availability and potential of renewable energy; and supply chain vulnerabilities due to small and weak local industry base to produce renewable energy infrastructure.

60. Some participants highlighted the economic dependence on the export of fossil fuels in some countries and regions, while others emphasised phase down and phase out of these fuels. In this context, one participant suggested that short-term phase out in coal-dependent countries might lead to instability, and that phase down over time would be preferred. Other participants highlighted national circumstances in which the import of fossil fuels dominated the energy mix, with implications for energy security. The use of CCUS technologies was also raised as a potential factor for consideration within discussions of phasing down/out of all unabated fossil fuels.

61. Some participants highlighted the equity considerations in transitioning to clean energy systems. They explained that developing countries will take longer to transition to cleaner energy systems owing to multiple challenges such as the need to prioritize sustainable development including ensuring energy security and tackling poverty with limited access to technology and finance.

62. Several participants underlined the importance of ensuring just transitions of local and national economies, considering the disproportionate adverse impacts of rapid energy transitions on countries and regions with economies dependent on fossil fuel production, import and export.

63. Opportunities from transition to clean energy sources mentioned by participants ranged from leapfrogging to a low-emission development pathway; sustainable development co-benefits such as improving health and energy security, promoting sustainable lifestyles, empowering communities, and utilizing the potential of new energy sources such as hydrogen, biofuel, biomass and ammonia; and leveraging private capital through carbon pricing.

64. Many participants highlighted the importance of achieving all the SDGs. These participants noted that climate action and the pursuit of SDGs are often interconnected, mutually reinforcing with many synergies. Where there are trade-offs, these need careful assessment to support transitions to climate resilient and low emissions development. As IPCC AR6 made clear, taking climate action offers co-benefits for other dimensions of sustainable development, such as human health, local air pollution, social protection, socio-

economic development, and other dimensions (see figure 3 above). In relation to socio-economic co-benefits, some participants emphasized that climate actions can support efforts to eradicate poverty, reduce inequality and enhance economic diversification.

65. Some participants shared good practices including grid integration to utilize surplus renewable energy; providing small government-subsidized loans to replace fossil fuel heating with solar home heating; setting sectoral targets in NDCs and setting clear national and sectoral targets with stakeholder consultations and pathways based on energy mix projections; securing voluntary commitments from private sector; avoiding lock-in of fossil-fuel infrastructure; replacing coal power plant with gas with specific end dates; giving tax credits for electric vehicles and CCS; directing revenue from emission trading systems to fund research and development of clean energy projects and to support just transitions of vulnerable communities and regions; involving local communities in the implementation of renewable energy projects; and providing investment guidelines to pension funds.

(b) Station 8: What is the role of reducing non-CO₂ emissions in achieving the long-term global goal on mitigation?

66. Participants shared their initiatives for reducing non-CO₂ emissions in various sectors. Some highlighted the effectiveness of international initiatives in raising awareness and ambition for reducing non-CO₂ emissions. While the implementation of the Montreal Protocol which covers non-CO₂ gases responsible for ozone depletion is considered effective, the implementation of other initiatives has not been considered effective.

67. Some participants highlighted the co-benefits arising from the implementation of measures to reduce non-CO₂ emissions, such as energy efficiency, cost-savings, improved health, and clean water supply. These co-benefits are often easily understandable by the public. Other participants emphasised that, in pursuing policies to reduce non-CO₂ emissions, the possibility of perverse impacts such as increased emissions in another sector or of another gas, or damage to local livelihoods or national economies, needs to be carefully considered. The co-benefits and trade-offs of actions to reduce non-CO₂ emissions should be well understood, particularly to those who are affected by the actions, to foster engagement and increase willingness to participate.

68. Some participants indicated that existing policies that specifically aim to address non-CO₂ emissions are limited. Most of those that are in place are in the form of cooperation or regulations. Some countries, however, have included or are including price-based incentives in their policies pertaining to addressing non-CO₂ emissions.

69. Some participants emphasized that strong institutional arrangements would facilitate the design of effective policy responses that include multiple objectives such as climate goals, food security, gender equality, just transition, biodiversity, and health.

70. Several participants were of the view that monitoring and reporting on non-CO₂ gases and their impacts are critical to effective implementation of mitigation responses. Inclusion of non-CO₂ gases in mitigation targets can create incentives for stronger climate actions.

(c) Station 11: How can our collective experiences with the preparation and communication of NDCs inform Parties in the updating and enhancing of their future NDCs? How can we support capacities for more ambitious NDCs in line with previous CMA decisions and guidance?

71. Several participants highlighted the importance of making NDCs more inclusive, taking into account youth and child engagement, gender, indigenous voices, as well as the perspectives of a broad spectrum of stakeholders.

72. It was suggested that improved communication, stakeholder engagement, and efforts to raise awareness, at the national, sub-national and local levels with respect to the ways in which stakeholders can contribute to the development and implementation of the next round of NDCs due in 2025 would be useful. This should be undertaken with a view to ensuring that the process of preparing the next round of NDCs is clearer to stakeholders. Moreover, NPS should be further engaged in a meaningful manner in the process of development and implementation of NDCs, including in the tracking of progress.

73. Many participants referred to a disconnect between the short- and medium-term goals set by countries in their NDCs and their long-term goals as per their long-term strategies. It was suggested that a long-term vision and direction for emission reduction (and adaptation) can be a key enabler for successively more ambitious NDCs, coming in 2025 and beyond, acting as building blocks towards long-term goals.

74. The importance of the provision of MoI was highlighted as a key enabler for raising ambition of the next round of NDCs and successive NDCs.

75. Some participants highlighted the recent findings from the IPCC AR6 cycle that increased engagement with a diversity of stakeholders in the NDC preparation process can lead to fairer and more ambitious NDCs.

76. Several participants noted that more equitable NDCs would lead to more ambitious NDCs. Some participants also highlighted that including considerations of equity, justice and fairness in climate strategies would be key for increased ambition and enhanced sustainability. They suggested that the UNFCCC should develop a set of indicators that could be used to explain the ambition level of NDCs (e.g., overall emissions, emissions per capita, contribution to global emissions). Countries could use one or more of those in their NDCs to make NDCs more transparent and more comparable.

77. Some participants highlighted that sustainable lifestyles and demand side approaches could contribute to raising the ambition of the next round of NDCs.

78. Many participants highlighted that receiving improved voluntary guidance for the development of subsequent NDCs from the GST would help to both raise ambitions and improve the implementability of NDCs. Some participants further elaborated that guidance on inclusion of particular sectors in NDCs would be useful for the next round of NDC updates. For example, actions related to health can help to raise ambition in the implementation of NDCs, for mitigation and adaptation.

79. The progression of NDCs towards economy-wide targets over time, was also discussed and guidance for sectors could help in this respect. Additionally, the inclusion of details on finance needs and on provision of support to achieve NDCs was specifically highlighted.

80. Some participants highlighted that some aspects remain underrepresented in NDCs, such as people's diets (in particular, meat consumption), NbS, nature protection, and gender. Integration of these issues has a large potential to help increase NDC ambition and implementability. Several participants indicated that these missing aspects are often not primarily identified as climate issues; however, they can offer climate co-benefits. For example, high levels of meat consumption cause health issues as well as air- and water-quality issues. Changing diets would also help to address these issues.

81. Some participants emphasised that adaptation and loss and damage issues from NDCs should be given fuller consideration in GST.

82. Many participants highlighted that improved coordination of action at the national, sub-national, and local levels in terms of collection of data as well as in the development of NDCs would be beneficial to strengthen the next round of NDCs in 2025.

83. Several participants emphasized the need to build domestic capacities to formulate NDCs, including capacities for data collection and management. Creating such domestic capacity and internal infrastructure can help countries comply with the continuous NDC preparation and tracking progress under the Paris Agreement. Several participants highlighted that enhancing domestic capacities to produce NDCs can lead to fairer, more ambitious and better implementable NDCs.

84. Putting in place the infrastructure for reporting at the sub-national and local levels could paint a more holistic picture of climate action being undertaken within a country feeding into more robust NDCs while creating a bridge between NDCs and reporting of action on the ground.

85. Some participants also highlighted that it is critical to provide support to developing countries for the generation, management, and evaluation of data for NDC preparation and implementation.

C. Adaptation, including loss and damage

1. Roundtable on adaptation, including loss and damage

86. Many participants emphasized the need for the GST to recognize and address the increasing urgency of the issue of loss and damage, particularly for the most vulnerable groups and communities, and the urgent need for adaptation. Though some progress has been made, enhanced actions and support are still needed. Gaps are also observed in context-specific data and research at both global and local levels. Some participants pointed to the need for strong political will under the GST processes, as well as enhanced coordination and coherence across spectrums, as important to ensure deliverables. The timely and full operationalization of the Santiago Network at COP 28, as planned and the work of the Transitional Committee in preparing recommendations for consideration at COP28/CMA 4 on new funding arrangements and the fund as mandated in decisions 2/CP.27 and 2/CMA.4, will be important steps to help effectively address the funding gaps and support existing architecture.

87. While recognizing the increasing political attention on the need to enhance adaptation, there are clear gaps in planning and implementation on both adaptation and loss and damage, including both in the short- and long-terms. Many participants highlighted major challenges, including the availability of and access to MoI and support.

88. Increased financial support for both adaptation and averting, minimizing, and addressing loss and damage was highlighted as needed at all levels and from both public and private sources. Many participants recognized that finance is a major challenge both in terms of scale and accessibility. There are needs for innovative sources and instruments and increased political commitment, taking into consideration the balance between mitigation and adaptation and the doubling of adaptation finance over 2019 levels by 2025. The importance of grant-based and concessional international finance, as well as of robust domestic investment and aligning all financial flows with low-emissions and climate-resilient development, was also highlighted.

89. Other challenges for adaptation action included the lack of fit-for-purpose data and climate services, as well as capacity-building for utilizing them; institutional arrangements; insufficient quality of existing monitoring, and evaluation and learning systems. Provided sufficient support, adaptation plans and policies, including NAPs, should be developed in collaborative and inclusive ways, and translated into investment strategies for adaptation.

90. The work of constituted bodies within the UNFCCC, including the AC, LEG and SCF, especially on identifying methods and tools for reviewing the adequacy and effectiveness of adaptation and support, as well as work outside of the UNFCCC, was acknowledged by several participants as contributing to the different aspects of the GST. There is also a need to improve the assessment of planned and implemented adaptation measures to avoid maladaptation and help ensure that future adaptation measures are more effective and fit-for-purpose.

91. Enhanced adaptation action will benefit from the involvement of local communities and indigenous people, taking into consideration their knowledge and experience. This includes active engagement in the formulation and implementation of NAPs, as well as the preparation of other key documents such as NDCs and adaptation communications, taking into account local plans and achievements. Improved governance and coordination across scales and sectors are also required to promote transformational adaptation.

92. Throughout the discussion, participants shared various opportunities and good practices in relation to adaptation and loss and damage. Examples included deploying public-private matching schemes for adaptation investments to reduce risks and increase confidence; broadening the range of financial stakeholders engaged in adaptation, including philanthropic organizations and international financial institutions, to help overcome financial gaps;

making use of NbS and EbA; mainstreaming adaptation and putting adaptation at the centre of decision-making to advance climate-resilient development and avoid maladaptation; building the adaptive capacity of workers through upskilling; and taking advantage of adaptation actions that offer significant mitigation co-benefits. In addition, a few participants reflected on concrete adaptation actions being implemented in various countries, including disaster risk insurance facilities and flood and drought management systems, which may offer lessons and good practices for enhancing adaptation action elsewhere.

93. Participants mentioned several forms of enhanced international cooperation on adaptation. Several participants referred to extending early warning systems to all countries and making information about multiple hazards available at all scales, including to local communities. A participant proposed introducing global, regional, and local coordination units, which would serve as focal points for stakeholders and Parties enabling a swift response to climate induced risks and impacts. Another participant noted that an impact inventory could be a powerful tool for risk assessment and monitoring, reporting and learning, across the adaptation implementation cycle. Many participants emphasised MEL more generally, and some indicated the potential of the ETF for iterative learning.

94. Many participants reflected on additional themes or considerations that should be reflected in the outcomes of the GST. The importance of explicitly reflecting progress towards the GGA, drawing on the work undertaken to date through the Glasgow-Sharm el-Sheikh work programme on the GGA, was highlighted by several participants. Other suggestions included reflecting specific linkages between adaptation and/or loss and damage and other processes, topics, and articles of the Paris Agreement; stakeholder participation, including specific groups and communities such as workers, children, and youth; specific components of the climate system, such as the cryosphere or ocean; sectoral considerations, such as climate-resilient health systems; and food system.

95. Some participants also highlighted the need to look closer into the linkage between the GST and GGA processes. There is a need to review the work under the GGA processes thoroughly and reflect in the first GST outcomes; and for the GST to provide guidance to advance work on the GGA.

2. World Café

(a) Station 9: Reviewing the overall progress made in achieving the global goal on adaptation (Art 7.14(d))

96. Some participants highlighted the complexity of establishing a GGA and assessing progress towards it, and stressed few specific aspects, as follows:

(a) Assessing progress requires a balance between assessing progress collectively at global scale, as distinct from contextualized progress in adaptation at regional and local scales. Therefore, progress must be considered under national circumstances and at the regional and local levels and integrated towards an assessment of collective progress.

(b) Assessing progress towards adaptation is a moving target, given that: climate risks are diverse at the global, transboundary, national, and local levels; the levels of climate impacts in various regions are also changing, not only depending on the risks faced, but also for different global warming levels, which in turn depend on mitigation efforts.

(c) For assessing progress and setting a GGA, the current levels of adaptation actions need to be synthesized and assessed to get a fuller picture and establishing a globally recognized framework for doing so remains a challenge. Drawing upon methods and best practices in different countries could be a starting point.

(d) Assessing progress requires consideration of different dimensions – adaptation processes, enablers, actions and cross-cutting considerations. Among these, some participants highlighted considerations of equity, including distributional consequences and stakeholder engagement. Many participants suggested the use of the adaptation policy cycle for framing the progress, not only because many countries are familiar with it but also because the process of applying the cycle makes it possible for countries to reflect on national

contexts therefore able to identify suitable adaptation measures and accordingly the financing gaps and strengthen efforts over time based on experience.

(e) Assessing progress requires the integration of sectoral or thematic approaches to help define clear targets and subsequently assess outcomes.

97. Acknowledging transformational adaptation²³ should be a central element in the GST process. To this end many participants highlighted the need for enabling conditions, including MoI, supporting policies and institutional arrangement. When assessing the progress of actual policies and measures taken, the consideration within each of the relevant sectors as well as across all these sectors is equally important. Different approaches used by different countries in different sectors can be shared and compared to enable exchanges and learning.

98. Many participants noted the need for robust methods and approaches (including both processes and outcomes) to help assess the heterogeneous and varied sources of information on adaptation, including new technologies such as machine learning and artificial intelligence, to produce a comprehensive global picture. Data gaps, fragmentation and accessibility of information are the main challenges highlighted by some participants, especially accessibility by those who have the most needs. The lack of a suitable approach to synthesize the wealth of existing information and enable cross-learning was highlighted by some participants – this in turn will also help the assessment of progress at all levels.

99. Existing reporting mechanisms under the UNFCCC and Paris Agreement, the Adaptation Communications, NAPs, and NDCs, as well as under other international mechanisms, can serve as starting basis of such synthesis. More advanced solutions including machine learning and artificial intelligence can be used to compile and synthesize available information more scientifically and systematically, noting the complexity related to the definition and identification of adaptation efforts, especially among local communities. The Technical Paper by the AC published in 2021 – Approaches to reviewing the overall progress made in achieving the GGA²⁴ – was mentioned by some participants as an example of a useful compendium of approaches and methodologies.

100. The IPCC AR6 Working Group II report on Impacts, Adaptation and Vulnerability contains helpful assessments of collective progress, including gaps, opportunities and needs. The report's assessment on possible indicators to track progress across countries were mentioned as valuable input. Other resources can also contribute to the processes, such as the Adaptation Gap Report published in 2021 by the UNEP and the Lima Adaptation Knowledge Initiative.

101. Many participants highlighted that there remain many data and information gaps and challenges for reviewing the overall progress in achieving the GGA. Several pointed out that elaboration of the GGA through the Glasgow Sharm el-Sheikh Work Programme is expected to be helpful to inform the subsequent GST. Some participants also noted that the GST can in turn provide guidance to the GGA on, for example, the identification of adaptation priorities. Other participants also noted that the outcomes of the first GST at COP 28 may also provide a baseline against which the GGA is subsequently operationalized to conduct further work.

(b) Station 10: How can domestic policies facilitated by international cooperation address slow-onset events, which may result in loss and damage?

102. Many participants noted that loss and damage was being experienced and observed already and referred repeatedly to the IPCC WGII contribution to AR6. Regarding understanding slow-onset events, several participants highlighted that: these events cannot be separated fully from extreme events (discussed more extensively in previous meetings); and there are data, information, and methodological gaps which, if addressed, would improve assessment, action and response in relation to slow-onset events. For example, these include

²³ Transformational adaptation is adaptation that changes the fundamental attributes of a social-ecological system in anticipation of climate change and its impacts (IPCC AR6 WGII glossary available at https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_Annex-II.pdf).

²⁴ Available at https://unfccc.int/sites/default/files/resource/ac2021_tp_gga.pdf.

gaps related to measuring slow-onset events and associated loss and damage through existing assessment methodologies, establishing baselines in the absence of long-term data, and defining triggers for action and support. The importance of local and indigenous knowledge was highlighted to identify the occurrence of slow-onset events. Some participants highlighted the need to cover cities and urban fringe while understanding the impact of slow-onset events like increasing temperature and land degradation.

103. Throughout the discussion, many participants also underscored that slow onset climate events or processes cannot be seen in isolation from other non-climatic factors (e.g., development choices and other anthropogenic factors), as well as considerations of long-term sustainable development, and the broader continuum of risk and climate action (including mitigation and adaptation). Understanding how slow-onset events interact with extreme weather events, including as compound events, and addressing resulting impacts in an integrated way will be important to mount an effective response. Compounding effects are important to consider within a comprehensive risk management approach, and such holistic, integrated responses to such effects must also consider non-economic losses arising from such events. For example, glacial lake outburst flooding, as an extreme event, is associated with glacial retreat, a slow-onset event, or successive or compounding droughts associated with desertification. Some also noted the importance of understanding local slow-onset events together with global trends. For example, localized coastal erosion and salinization are associated with global sea-level rise, another slow onset event. Some participants referred to integration across key actions across the spectrum of averting, minimizing and addressing loss and damage.

104. In relation to national policy and financing, several participants noted that there are challenges in committing to effective responses, particularly in the context of irreversible changes and loss and damage. Existing national policies in place may contribute to, and provide a starting point for, addressing loss and damage arising from slow onset events. These include policies and plans developed under the UNFCCC and Paris Agreement, such as NAPs, and under related international processes, such as national biodiversity strategic action plans, disaster risk reduction plans, and humanitarian response plans. It also includes other national policies, regulations, and programmes that countries are putting in place in areas ranging from coastal zone management and drought management policies to programmes on EbA and NbS, besides plans on human mobility and land reclamation. Some participants noted, however, that the implementation of adaptation plans often have shorter time horizons following project cycles and impede action on slow-onset events. The need for iterative development of strategies and plans was noted to support transformative adaptation and build resilience. At the same time, however, the need to go beyond tools such as adaptation plans was emphasized by some participants, drawing on IPCC findings on hard and soft limits to adaptation.

105. Long-term approaches were seen by many participants as necessary to effectively address slow-onset events given the long horizons over which these events unfold. In relation to this, the sustainability of international finance – and, in turn, expanded sources of finance – will be an important factor to enable addressing slow onset events. This necessitates a paradigm shift away from the typical, project-based short-term approaches to financing climate action.

106. Scaling up action at the local level through gender-responsive, community-driven management was identified as an important component of the response to loss and damage. In applying the frameworks established at national or international levels, several participants indicated the importance of considering the capacity and knowledge of local-level actors who will shoulder some of the responsibility of applying related policies and commitments. Local communities and stakeholders, including indigenous communities, can testify to both the changes resulting from slow onset events and the implications these have in terms of loss and damage; these communities can also be empowered to act to address slow onset events, through for example, community-based watershed management and associated data collection.

107. Reflecting on international cooperation on slow-onset events, many participants emphasized that loss and damage resulting from slow-onset events are often shared across countries. International cooperation in the form of both transboundary management of

resources as well as complementarity across relevant international frameworks and processes - including the Convention on Biodiversity, the Convention to Combat Desertification, the Sendai Framework for Disaster Risk Reduction, and more - is fundamental to comprehensively addressing slow onset events and maximizing the impact of available financial and technical resources. The need to leverage complementarity and coordinate across different international frameworks, and the resultant coherence across national planning processes, was noted. The role of the Santiago Network in knowledge exchange and connecting action at national scales was also highlighted.

D. Means of implementation and support, including international climate finance and finance flows, technology and capacity-building

1. Roundtable on means of implementation

(a) Finance flows and international climate finance

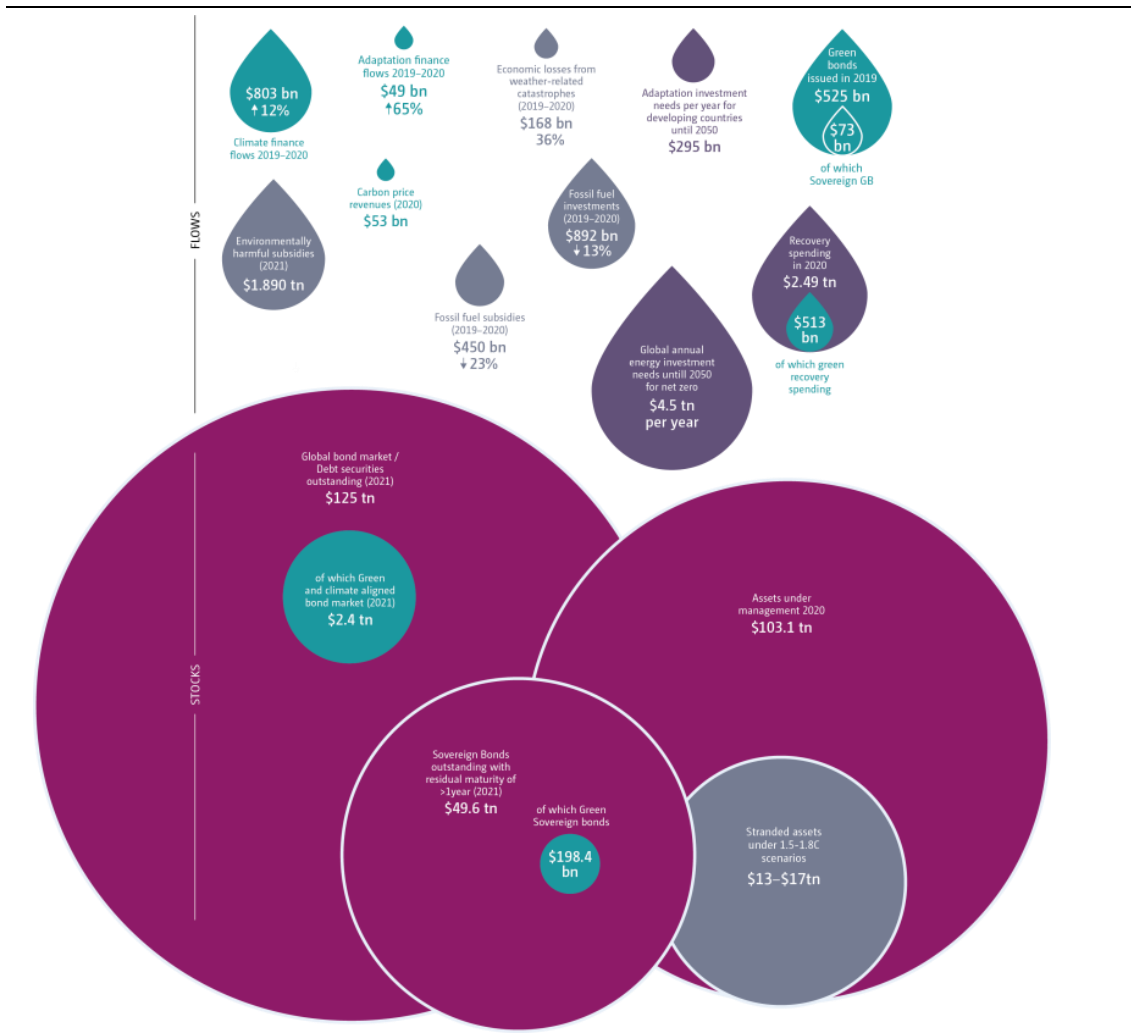
108. Participants discussed both the mobilization and provision of finance, and making finance flows consistent with climate resilient and low GHG emission development. In response to the emerging message, some participants were of the view that it focused too much on finance flows while others were of the view that it focused too much on the provision and mobilisation of international climate finance.

109. Decision 19/CMA.1, paragraph 36(d), specifies that the sources of input for the global stocktake will consider information at a collective level, including the finance flows, including the information referred to in Article 2, paragraph 1(c), and MoI and support and mobilization and provision of support, including the information referred to in Article 9, paragraphs 4 and 6, Article 10, paragraph 6, Article 11, paragraph 3, and Article 13, in particular paragraphs 9 and 10, of the Paris Agreement. This should include information from the latest biennial assessment and overview of climate finance flows of the SCF.

110. Many participants referred to reports by the SCF, which in its latest biennial assessment shows global finance flows in the context of broader finance flows, opportunities, and costs (see figure 5 below). The report highlights the need for broadening the focus beyond positive climate finance flows, given the scale and speed of effort required for the alignment of finance flows with low emission, climate resilient pathways.²⁵

²⁵ <https://unfccc.int/topics/climate-finance/resources/biennial-assessment-and-overview-of-climate-finance-flows>.

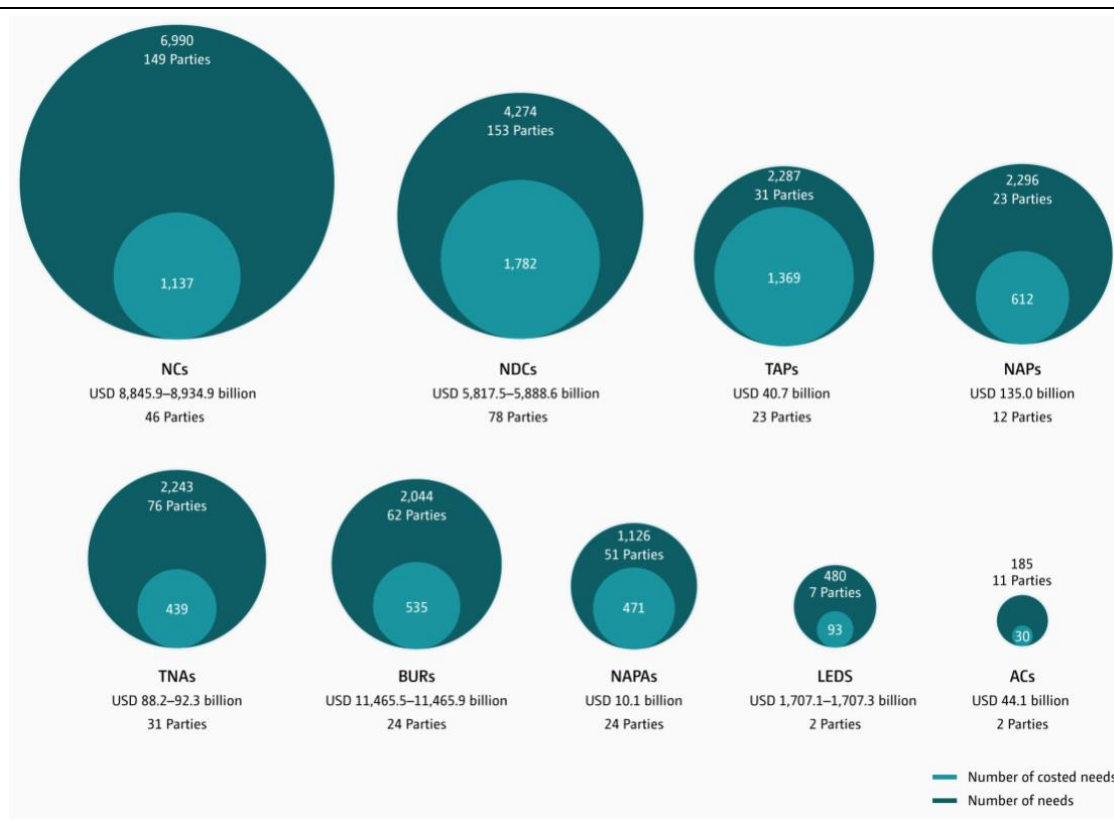
Figure 5
Global climate finance in the context of broader finance flows, opportunities and costs



Source: SCF's fifth Biennial Assessment: summary and recommendations by the SCF- Figure 5, see https://unfccc.int/sites/default/files/resource/J0156_UNFCCC%20BA5%202022%20Summary_Web_AW.pdf

111. The SCF NDR shows a range of costed needs by type of national report (see figure 6 below). The NDR summarizes the needs identified and articulated by developing country Parties across nine types of national reports as encompassing a wide range of financial; technology development and transfer; and capacity-building needs. The level of detail in the information provided varied in their descriptions as well as in costing, if specified. Although more adaptation than mitigation needs were identified, more costs were identified for the latter, likely due to lack of available data, tools and capacity for assessing adaptation needs.

Figure 6
Overview of articulation of needs including costed needs by type of national report submitted to the UNFCCC



Source: SCF's first NDR: Figure 1 - see

https://unfccc.int/sites/default/files/resource/54307_2%20-%20UNFCCC%20First%20NDR%20technical%20report%20-%20web%20%28004%29.pdf

112. Many participants highlighted that the GST is well-timed to inform discussions on the New Collective Quantified Goal by assessing the progress made on the USD 100 billion per year goal and the sources of climate finance to address the needs of developing countries while also pursuing efforts on Article 2.1(c) of the Paris Agreement. Recommendations from the GST could be considered in the context of the New Collective Quantified Goal decision for consideration in 2024.

(i) *International climate finance*

113. Many participants indicated that the current levels of climate finance fall short of the amounts required to effectively address climate challenges emphasizing the urgent need for accelerated financial support from developed countries and other sources to bridge the significant gap in financial support faced by developing countries in their efforts to implement their NDCs. Several participants also underscored the need for developed countries to achieve the goal of jointly mobilising USD 100 billion per year by 2020. Other participants pointed out that this goal appears to be on track met this year, in 2023. The SCF in 2022 published a report on 'progress towards achieving the goal of mobilizing jointly USD 100 billion per year to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation'.²⁶

114. It was highlighted that the current finance flows, including provision and mobilisation of climate finance, do not effectively reflect the needs of developing countries, particularly

²⁶

https://unfccc.int/sites/default/files/resource/J0156_UNFCCC%20100BN%202022%20Report_Book_v3.2.pdf.

for adaptation. The expressed needs of developing countries for mitigation and adaptation are estimated at USD 5.8 billion²⁷ as identified in 78 NDCs, noting gaps in the availability of information on costed needs, particularly for adaptation and unevenness between regions. Other sources estimate over USD 4 trillion in annual investments needs by 2030 for achieving net zero transitions in the global energy sector.²⁸ In contrast, overall global climate finance flows are estimated at USD 803 billion²⁹ on average annually in 2019-2020. With respect to flows from developed to developing countries in 2020, USD 31.4 billion in climate-specific finance was provided through bilateral, regional and other channels, while USD 3.5 billion approved through multilateral climate funds; USD 28.2–33.2 billion in climate finance flows provided via MDBs was attributed to developed countries, and USD 13.1 billion in private climate finance was mobilized by developed countries through bilateral and multilateral channels as estimated by the Organization for Economic Co-operation and Development. Some participants emphasized that the provision and mobilization of climate finance should be based on equity, taking into account the needs and priorities of developing countries while achieving a balance between mitigation and adaptation.

115. Some participants emphasized that there is a significant imbalance in the allocation of funds, with far more supporting mitigation than adaptation. With increasing global efforts in financing and investing in mitigation activities, there remains a substantial need for financial, technical, and human resources to support adaptation initiatives. To address this, these participants suggested that the GST should prioritize identification of gaps and solutions to achieve a balance between investments in mitigation and adaptation, through potential use of suitable financial instruments. Some participants also noted that the private sector's engagement in financing adaptation and addressing loss and damage is limited due to the risks involved.

116. Delivering climate finance at scale requires, among other, transformation of financial systems, their structures, and processes, addressing inequities in accessing finance, capacity needs and investment cost, and creating enabling environments. Some participants highlighted that measures should be taken to expedite access to funds and reduce the burden of debt. Others spoke of the need for fundamental reform of multilateral development banks and international financing institutions as an important pathway to increase concessional finance and scaling up action on mitigation and adaptation.

117. Some participants highlighted that immediate and substantial investments are required to address the urgent need for trillions of dollars in climate action. However, the current scale and speed of finance fall short of meeting these requirements. Some raised a need for establishing explicit linkages between temperature goal, needs assessment, and the scale of finance provided by developed countries.

118. Some participants raised concerns about uneven distribution of finance flows to vulnerable regions. These participants were of the view that provision of climate finance should consider the special circumstances and conditions of regions such as LDCs and SIDS, including their remoteness and susceptibility to climate hazards.

119. For some participants equity must be a central consideration in efforts to align flows, in addition to consistency with sustainable development goals and the eradication of poverty. Others spoke of the adaptation gap and highlighted that adaptation projects are not always profitable or bankable and would require greater mobilization of public finance. Another group of Parties mentioned that efforts to fund resilience measures would fail if they were stuck in an endless cycle of re-building and responding to increasingly destructive extreme events. Developing countries, and LDCs and SIDS in particular, they argued, would require dedicated capacity-building support measures for Paris alignment of finance flows.

(ii) *Finance flows*

120. Supporting policies to incentivize investments and transform the financial system are needed to increase climate ambition and implementation. Some participants emphasised that

²⁷ https://unfccc.int/sites/default/files/resource/cp2021_12_add1E.pdf.

²⁸ <https://www.iea.org/reports/world-energy-outlook-2022/executive-summary>.

²⁹ https://unfccc.int/sites/default/files/resource/cp2022_10a02E.pdf.

making all financial flows, public and private, domestic and international, consistent with a pathway towards low GHG emissions and climate-resilient development is crucial in this regard. The GST can play a role in exploring solutions, methodologies, and tools to close the global investment gaps and align global financial flows with the objectives of the Paris Agreement.

121. A number of Parties shared their views that while significant effort was already underway towards consistency of financial flows, including through private sector commitments such as the Glasgow Financial Alliance for Net Zero, increasing adoption of policy and regulatory measures for green finance in both developed and developing countries, increased issuance of green bonds, and decreasing investments in unabated fossil fuels and fossil fuel subsidies, much still remains to be done. These participants viewed the GST as a process to assess progress and provide a course correction towards the achievement of the overarching goals of the Paris Agreement. The SCF in 2022 published a report on ‘mapping of available information relevant to Article 2, paragraph 1(c), of the Paris Agreement, including its reference to Article 9 thereof’.³⁰

122. The critical role of transparency was highlighted by several Parties, such as in the development of sustainable finance standards, formulation of guidance and methods for measuring climate impacts and risks, reporting requirements for sustainability and risk assessment, climate disclosure, as well as methodologies and approaches to avoid double counting. The role of governments is key in this regard with some viewing that such mechanisms need to move beyond voluntary approaches to regulatory approaches in order to ensure participation of more entities and reduce greenwashing. In doing so, some participants noted that the diversity within the private sector must be recognized, for instance, SMEs in some countries would require support to transform their processes.

123. Several participants emphasised that efforts to attract private sector investments need to be enhanced. The GST should share good practices and examples of how climate finance can be effectively support transformative climate action on the ground. One group of Parties shared their view that the GST should help to bring about a fundamental transformation of all economies and a major shift in the structure of the global economy, governance frameworks and regulations, financial markets and investments. Another group of Parties mentioned the need to foster a net climate finance approach so that climate finance flows are increased but also financing, investment and subsidies to high-emitting activities are eliminated.

(b) Technology

124. Many participants emphasized the fundamental role of technology development and transfer in achieving a just transition to a low-emission, climate-resilient future as outlined in the Paris Agreement. This includes urgent adaptation actions, phasing out unabated fossil fuels, reducing global emissions by 43 per cent by 2030, and achieving net-zero CO₂ emissions by 2050.

125. Many participants stressed the need for enhanced financial and capacity-building support for technology development and transfer in developing countries, particularly in LDCs and SIDS, to effectively implement their NDCs, NAPs, TNAs, and TAPs. Some participants emphasized that financial support for technology development and transfer needs to be more provided in the form of grants to developing countries as well as in the form of blended finance to the private sector to ensure the uptake of climate technologies.

126. Some participants highlighted the importance of international cooperation on climate technologies being based on identified needs and supporting the enhancement of endogenous capacities, enabling environments, and national systems of innovation. International cooperation on innovation should be inclusive, equitable, tailored to specific institutional and capacity contexts and benefit local value chains. It was emphasized that support for technology development and transfer should be people-centred, human rights-based, and gender-responsive.

³⁰ <https://unfccc.int/documents/620451>.

127. Some participants highlighted that over 100 developing countries have submitted at least one TNA, and developed over 1,000 TAPs, many of which remain unfunded. Many participants suggested that the GST needs to strengthen international cooperation to implementing TNAs and TAPs, including engaging MDBs and the private sector, and through continued strengthening of linkages between the Technology Mechanism and the Financial Mechanism by enhancing coordination between national designated entities and national designated authorities of the Green Climate Fund and the national focal points of the GEF.

128. Some participants were of the view that the GST could reflect on how effective the UNFCCC Technology Mechanism is used and supported for the development, transfer and deployment of climate technologies by building on the findings of the first periodic assessment of the Technology Mechanism. Concerns were raised regarding the lack of logistical and technical support for national designated entities and insufficient financial support for the Climate Technology Centre and Network.

129. While acknowledging that the significant drop in prices of renewable energy technologies has resulted in a global increase of investments in those technologies, it was also highlighted that the deployment of such technologies in developing countries, including LDCs and SIDS, remains limited. Continuous efforts and collaborative approaches are needed to continue to drive down the cost of climate technologies and to create enabling environments that facilitate the uptake of climate technologies in all countries. Several participants called for addressing the lack of systematic information on the global status of technology development and transfer, as existing information is often focused on developed country contexts.

130. Some participants emphasized the importance of data availability, ownership and effective use for informed decision-making, policy development, and measuring progress towards mitigation, adaptation, and addressing loss and damage. Collaborative efforts are needed to address issues related to intellectual property, ownership, and data sharing, ensuring equitable access and utilization of climate technologies.

131. Many participants suggested focusing on scaling up proven technologies, including solar and bioenergy as well as endogenous and indigenous technologies. However, it was also highlighted that biased approaches should be avoided, and investments in new technologies, such as carbon capture, use, and storage, should be promoted.

132. Some participants advocated for nuanced key messages from the GST that reflect the unique circumstances of LDCs and SIDS. Others highlighted the needs and priorities of developing country regions, for example in Africa, as outlined in the African Union's Climate Change and Resilient Development Strategy and Action Plan.

133. It was also proposed to consider complementing NDC guidance to introduce sectoral targets, energy transition pathways and anticipated required technology actions to incentivize action by NPS.

(c) Capacity-building

134. Many participants in the roundtable emphasized that capacity-building is critical for implementation, particularly in developing countries, especially LDCs and SIDS. There are still gaps in accessing capacity-building as well as in the modalities for delivery. Some participants stressed the need to eradicate the existing workshop culture in capacity-building. Many participants highlighted that instead, capacity-building should endeavour to build capacity within developing countries, including in LDCs and SIDS that have no capacity. These participants also highlighted that skills needed to be retained, once built, referring to this as sustainable skills retention. Such skills retention might be achieved through upskilling and reskilling (in the context of just transitions). It was also stressed that on-site training is needed and that women inclusion in the training process is important.

135. Knowledge management at regional level was considered as important by many participants. Such management should cater to the provision of resources and should be delivered through enhanced coordination between focal points.

136. Many participants stressed that to enable better delivery of capacity-building it was key to take stock of the importance of climate finance as well as technology in the process. Enablers like technology transfer, accelerating investment, promoting long-term relationships to share good practices, the provision of a green strategy as well as green climate finance are important to effectively address gaps and support existing capacity-building.

137. Some participants highlighted the need to recognize the changing patterns of capacity. Issues like equity and inclusion of vulnerable communities should be at the forefront of capacity-building agendas. Several participants highlighted lack of governmental engagement of key stakeholders like children, youth, and marginalized communities. There is also a need to enhance capacity-building support for NDCs, NAPs and access to MoI to enable sustained inclusion.

138. It is recognized that country ownership must be at the heart of capacity-building. Many participants highlighted that capacity-building is country-driven and that adequate support from international cooperation, institutional, systemic and individual capacity are required to deliver change. Moreover, it was emphasized that capacity-building is critical to long-term climate action and that national support was necessary.

139. Reflecting on the effectiveness of capacity-building, some participants emphasized on the need to assess revisions of capacity-building to strengthen the needs of LDCs. It is also important to upscale concrete capacity-building both in terms of current and emerging needs through an assessment process which analyses whether support provided respond to contextual needs and whether progress has been made. In developing countries, some participants emphasized that assessment, through a needs-based approach, was necessary to determine how to overcome the challenges faced by developing countries in regard to MoI.

2. World Café

(a) **Station 12: How to enable the transformation of the financial system and its structures and processes, engaging governments, central banks, commercial banks, institutional investors and other financial actors in order to meet the Paris Agreement goals?**

140. Participants discussed how the debt in developing countries is causing heavy constraints in their capacity to prioritize climate action at the national level. Mechanisms to cancel, reduce, change, and avoid debt will be needed to increase the fiscal space. Furthermore, financial institutions at the international level require a transformation to respond to the multiple crises that countries are facing and reform their financial mechanisms and instruments to provide different types of financial support according to developing countries' needs and context, avoiding further debt.

141. Some participants stated that central banks and other regulatory institutions play an essential role in ensuring the macro stability which will be affected by the climate change. In this context, it is important to continue efforts to create capacities in these institutions at all levels, to ensure climate change mainstreaming in its political and technical decisions.

142. It was suggested that countries as shareholders of international financial institutions can send strong signals to transform the financial system to motivate all financial institutions at the national level to incorporate climate change in their planning process. This is also relevant to comply with the Article 2.1c of the Paris Agreement.

143. Participants also discussed the relevance of the mobilization of private capital to fulfil the commitments of the Paris Agreement. While there is a growing number of initiatives to encourage the participation of the private sector, such as taxonomies, and other tools, these mechanisms must move from voluntary approaches to regulatory approaches that can ensure the participation and inclusion of more entities, avoiding greenwashing. Nevertheless, it is important to recognise that the private sector operates differently in each country since some of the SMEs still can't transform their processes, without support.

144. Several participants mentioned that the transformation of the financial system also requires closing the existing gaps in the climate finance flows, such as the adaptation gap, that require further mobilization. The coverage of the adaptation gap should recognise that the type and scale of finance needed may not comply with the traditional financial

requirements because they are not always “bankable” or “profitable”, and therefore other sources should be mobilized, such as more public finance for adaptation. It is important to have de-risking instruments for those projects that may represent riskier.

145. Finally, transparency came up as an important step to increase trust among actors, including risk assessment and climate disclosure across financial entities. In this context, it is important to improve methodologies and to have more standardized approaches to avoid duplicating reporting. Some regions already have taxonomies and standards however those are not universally applicable.

E. Integrated and holistic approaches

146. Integrated and holistic approaches refer to discussions that address several or all of the GST, as listed in decision 19/CMA.1 paragraph 6b.

1. Roundtable on holistic and integrated approaches

147. Many participants emphasized the role of the GST to create political momentum, in support of low-emissions and climate-resilient development pathways. Guidance and options to achieve net zero emissions and build resilience would be useful for implementation and enhancing ambition. To help realize this, some participants highlighted the importance of international cooperation to build collective solutions for transitioning from incremental change to real transformative action.

148. In addition, international cooperation was noted as a critical enabler for achieving ambitious climate action by mobilizing the required MoI and strengthening institutional capacities. However, this needs to be done by respecting the sovereignty of Parties and in accordance with national circumstances, social, cultural, and economic realities, including by recognizing the needs of local communities and indigenous people. In this context, some participants emphasized the importance of equity considerations and common but differentiated responsibilities when strengthening international cooperation to achieve the goals of the Paris Agreement.

149. The barriers for scaling up international cooperation should also be addressed to help accelerate the deployment of clean and emerging technologies and promote innovation, in particular, for developing countries. Several participants were also interested in how technological opportunities could offer developing countries a chance to leapfrog in their quest for sustainable development. Science and technology should be focused on considering inequality stemming from new technology evolutions and the effects on those with limited access to the internet as well as on data from early warning systems and technologies that can prepare them for the impacts of climate change.

150. Strengthening international cooperation by bridging gaps, building trust and solidarity within the UNFCCC and Paris Agreement processes and prioritizing collective solutions is conducive to creating an enabling environment for effective climate action. Good practices and examples of international cooperation that were raised include the successful deployment of renewable and clean energy technologies globally, the Breakthrough Agenda that brings together action from national governments, businesses, and civil society to focus on the near-term opportunities to accelerate the systems transformation, the NDC partnership, the Global Methane Pledge and the work of the High-Level Champions, among others.

151. In recognition that climate change is impeding developmental gains, efforts to the eradicate poverty, and ensuring food, water, and energy security in many places around the world, some participants called for strengthening synergies, integrated policies and holistic solutions that are consistent with sustainable development and ensuring just transitions.

152. Many participants placed significant importance on integrating nature and conservation and restoration of ecosystems, including ocean, coastal and marine systems and biodiversity within climate action strategies. Synergies with other international agreements and the understanding of the interdependencies between climate change, nature and biodiversity to enhance climate action was emphasized. Particular examples were highlighted where Parties have adopted comprehensive approaches to address climate change adaptation,

mitigation, and loss and damage while also simultaneously preserving biodiversity and fostering sustainable livelihoods. In addition, it was highlighted by some participants that international cooperation should be integrated into NDCs, long-term strategies, and policy planning at all levels. These participants then suggested that this requires policy consistency between different international agreements, the SDGs and other frameworks to overcome environmental policy silos. In addition to nature and biodiversity, several participants also emphasized the social and human aspects of integrated and holistic approaches by incorporating human rights, including the rights of children, indigenous peoples and communities, workers and consumers; gender; health; intergenerational equity; and traditional knowledge.

153. Some participants also reflected on the importance of accelerating action and driving transformation across different systems to urgently scale up ambition and implementation. There are many opportunities to drive systems transformation, optimize processes and provide support. However, this requires a needs-based approach that considers equity and the development context to unlock progress.

154. In terms of continuing to drive economic growth while also recognizing the rapid transformation that is needed, several participants reflected on how new economic paradigms could allow for decoupling of human activities, climate change and nature degradation, in terms of emissions but also with respect to the impacts on biodiversity and natural resources. They also stressed that the various benefits from protecting and restoring nature need to complement and not delay other near-term action with high mitigation potential.

155. Many participants pointed out that an ambitious outcome to the GST means a course correction to fully deliver on the goals of the Paris Agreement and emphasized the need to provide clear and understandable options, particularly in areas of international cooperation and integrated policymaking, which considers equity and development context. Several participants asserted that this transformation need unique approaches and options that are nationally determined for each of the sectors such as transport, housing, industry, energy, shipping, and aviation with clear signals for enhanced international cooperation, the creation of appropriate enabling environments and respecting other multilateral processes.

156. Many participants acknowledged the important role that NPS play to complement Parties' efforts in implementing the Paris Agreement, strengthening international cooperation, and driving systems transformation. Some participants referred to the IPCC AR6 synthesis report to underscore the importance of political commitment, institutional frameworks, laws, policies, and strategies to catalyse action and cooperation between national governments and NPS.

157. Several good practices of the work of NPS were cited by participants. One of these relates to assisting SIDS to overcome capacity constraints, enhancing scientific knowledge and multi-stakeholder cooperation such as through the Marrakech Partnership Climate Action Pathways and the Sharm El Sheikh Adaptation Agenda. In this regard, some participants emphasized the importance of embracing a whole-of-society approach and building partnerships that include women, youth, indigenous peoples, the private sector, financial institutions and the science community to ensure robust, innovative, and durable results for climate action through inclusivity, participatory processes, and drawing on multiple resources and experiences. Some participants suggested that one of the legacies of GST could be cementing a more active engagement of NPS to help implement various aspects of the UNFCCC and Paris Agreement. Along with this acknowledgement, there was the recognition that accelerating concrete implementation requires enhanced transparency and accountability of climate action by NPS and initiatives and the relevance of the recommendations of the UN Secretary-General's High-Level Expert Group on the Net Zero Emissions Commitments of Non-State Entities in this area.

158. In addition, many participants highlighted the importance of multi-level governance and ensuring integrated policymaking with close coordination between national governments and subnational regions, cities and local governments. Given the capacity that many subnational governments have in public procurement and policy implementation in systems such as energy, transport, industry and land use, vertical integration can act as a critical step to facilitate effective climate action that is guided by the SDGs and leaves no one behind. For

instance, city-to-city cooperation and expansion of business models for regional organizations were identified as ways to reduce emissions and strengthen adaptation at the global level.

159. While recognizing the need to pursue efforts to limit global temperature increase to the 1.5°C above pre-industrial levels, some participants noted the need for pragmatic planning to address scenarios of temporary overshoot to ensure that necessary measures are put in place to minimize risks and impacts by enhancing adaptive capacity, investing in climate resilience, and mobilizing international support to address the consequences of overshoot for vulnerable populations. However, many participants also underscored that planning for temporary overshoot scenarios should not reduce the urgency to increase ambition and the efforts in striving for the 1.5°C temperature goal due to the significant risks and severe impacts for every additional increment of global warming on human and natural systems and knowledge gaps in these scenarios.

160. Recognizing the critical role of research and systematic observations, many participants pointed out how research and knowledge gaps should be addressed to ensure that processes under the UNFCCC are informed by the best available science. These gaps include clear and forward-looking perspectives related to cryosphere, mountains, cyclones, landslide, floods, avalanches and ensuing the risks and impact on people and the environment are consistent with leaving no one behind. As such, suggestions were made on strengthening the collaboration with the scientific communities to make their findings as policy relevant as possible and the importance of the upcoming IPCC cycles. The need to strengthen the role of science in outlining the risks and impacts related to tipping points was also highlighted, in particular in relation to the cryosphere and ocean, and the corresponding consequences for adaptation and mitigation action and the role in guiding the scientific community and the IPCC to fill knowledge gaps related to thresholds and invariability.

2. World Café

(a) Station 1: Local leader of a rapidly growing coastal urban centre

161. Participants engaged in discussions centred around the challenges faced by a local leader in a rapidly growing coastal urban centre. These discussions focused on various aspects of climate action, stakeholder engagement, financing, and governance at the local level.

162. The discussions consistently highlighted the critical importance of strong political commitment at the national level. Many participants acknowledged the diverse challenges experienced across different regions and proposed technical responses tailored to address specific issues such as flooding, informal settlements, socio-economic inequality, and coastal erosion. However, the prevailing consensus was that a holistic approach, incorporating comprehensive planning and multilevel governance, is essential for effectively combating climate change.

163. Central to the discussions were the vital components of local engagement, inclusivity, improved financing mechanisms, accountable governance, and comprehensive integrated planning. These elements were viewed as integral in addressing climate change and its impacts at the local level. Recommendations from participants covered a broad spectrum, including empowering communities by involving youth and households in climate action efforts, promoting city-to-city exchange learning, and establishing green banks to facilitate climate-related financing.

164. The significance of working closely with stakeholders, including the private sector, and implementing local climate action plans was emphasized by several participants. Finance emerged as a critical enabler, with suggestions ranging from providing financial support to local communities and Indigenous Peoples to imparting knowledge on accessing funding and navigating administrative requirements.

165. Experiences shared by participants from various regions underscored the value of forming alliances with the private sector for economic recovery and ensuring accountability, transparency, and monitoring to uphold appropriate checks and balances. Community organizations, rooted in traditional and religious leadership, were recognized as powerful

advocates for basic services and addressing climate change. Such initiatives had evolved into comprehensive climate change plans with local ownership, bolstered by legal safeguards.

166. Many participants stressed the need to humanize climate action approaches, engage vulnerable populations, and ensure solutions are tailored to meet real needs without causing adverse impacts. They emphasized striking a balance between efforts to achieve net-zero targets and delivering basic health and services.

167. The discussions emphasized the necessity of proper climate action plans, developed through inclusive and holistic approaches, integrating diverse and local voices, and prioritizing justice and equity. Many participants recognized the significance of robust governance systems and institutional partnerships, including collaborations with the private sector, to ensure improved accountability and transparency.

168. Moreover, the importance of adaptive and hybrid solutions that respond to changing contexts and deliver co-benefits for both climate and development was stressed. The discussions also highlighted the need to consider culture, heritage, and land tenure issues, which are often overlooked in climate action planning and financing for urban settlements.

169. Addressing the implications for the GST, participants suggested empowering local action, revising local government systems, providing accessible finance for vulnerable cities and communities, networking cities, enhancing access to climate services, evaluating the impact of responses, and prioritizing equity and justice. Mobilizing resources through various stakeholder groups and intermediaries was also identified as a significant strategy.

(b) Station 2: Leader of an indigenous community

170. Indigenous Community Leaders among the participants shared their profound ties to nature, viewing it as kin and Mother Earth, and emphasized the intricate harmony between natural elements sustaining all life forms. They advocated for valuing nature beyond monetary measures adopting a broader perspective that recognizes the cultural, spiritual, ecological, and intrinsic significance of nature.

171. Many participants emphasized the importance of participatory planning and consultation. They stressed the need to actively involve IPLCs in the formulation and implementation of climate action plans. The participation should be consultative, participatory, and inclusive, focusing on various aspects such as mitigation, adaptation, resilience building, and the protection of rights and cultural heritage. To facilitate meaningful consultation, dedicated sessions and spaces at the national level were proposed to ensure engagement with IPLCs.

172. Many participants also highlighted the need to redefine success metrics of climate action to capture the benefits and impacts of Indigenous Peoples' practices and values. This requires establishing baselines informed by the knowledge systems of IPLCs, including their traditional knowledge. By incorporating these perspectives, a more comprehensive understanding of the impact of climate action can be achieved.

173. Many participants emphasized the importance of recognizing and promoting IPLCs as climate leaders. Their rights-based approach and traditional knowledge are crucial in addressing climate change and building resilience.

174. An inclusive evidence-based approach was also emphasized. Some participants highlighted the need for a broader definition of "evidence-based" that incorporates a diverse range of knowledge systems. IPLCs possess valuable experiential insights, worldviews, and knowledge systems that should be considered alongside scientific knowledge. Many participants highlighted the relevance and credibility of indigenous knowledge systems in climate change discourse.

175. Finally, capacity building and financial support were identified by many as essential elements to empower IPLCs in climate policy and action.

(c) Station 3: President of a multilateral development bank

176. Participants discussed among others, the scale of investments required to meet the Paris Agreement goals and highlighted the need for a transformation of the financial systems.

While various MDBs have established and enhanced climate finance targets, the need for fundamental reform of MDBs and international financing institutions has been identified as an important pathway to increase concessional finance and scale up action on mitigation and adaptation.

177. Many participants emphasised that MDBs have an important role to play to mobilize large-scale investments that connect development, environmental and climate change perspectives towards the implementation of the Paris Agreement, including cross-cutting themes. To further facilitate effective and inclusive MDB engagement, several participants expressed that MDBs should make a concerted effort to engage with stakeholders widely, including at the subnational, community level and beyond consultation to collaboration. Others also suggested that MDBs need to set benchmark performance on aligning their investments to the goals of the Paris Agreement in the context of Article 2.1c and demonstrate it to other actors in the financial system.

178. Some participants suggested that there is no dichotomy between climate and development investments, given the overlying risk to development from climate change. There is a need to build capacity of the MDB board on this aspect also at the country/client level to realize the mutually reinforcing benefits of climate friendly and development investments.

179. Other participants were of the view that, while the vision and commitment on climate action and finance may be shared by many shareholders, some participants acknowledged that there remains some tension between demand for basic development investments (education, health, infrastructure) and climate finance.

(d) Station 4: Community organizer for a youth environmental non-governmental organization

180. Participants at this station explored a range of challenges faced by youth embedded in the need for transitions to low-emission, resilient and inclusive development pathways. They also looked at actions that could be pursued to create enabling conditions for youth to be an active part in these transitions as well as opportunities they might have to increase their capacity to contribute to the pathways.

181. During the discussions, many participants recognized the active role of children and youth as agents of change, solutions-providers, entrepreneurs and sources and disseminators of information. Many participants emphasized the need to scale up these efforts by providing additional youth-centric resources, including accessible opportunities and programmes to attract young people financially and culturally and taking into consideration the diversity within the youth group who may have varying priorities, vulnerabilities and needs.

182. Some participants noted that existing best practices for building youth capacity for climate action should be more widely used and scaled up. Existing international, regional, national and local youth programmes, initiatives, movements and networks need to be empowered and connected, ensuring long-term impacts and continuous capacity-building.

183. Many participants stressed the need for meaningful and cross-cutting engagement of children and youth in decision-making processes at all levels. Youth councils, advisory groups and inclusion of young delegates in national delegations to UNFCCC meetings were mentioned as good practices.

184. Education, training and public awareness were identified as priorities to educate and equip young people with knowledge and skills for climate action and increase their access to green jobs. It was noted that climate change education at all levels, covering both formal and informal education and incorporating traditional, Indigenous and ancestral knowledge, is required to increase climate literacy and green career prospects. Many participants also noted that training, apprenticeships, and capacity-building should be provided to youth, including through peer-to-peer efforts. Furthermore, access to information on youth networks and green job opportunities was highlighted as crucial and should consider various technological, language and economic barriers.

185. Some participants emphasized that support provided should prioritize and foster locally led and community-based projects which can also empower local communities,

including by referencing good practices such as trust funds dedicated to community projects, and policies to enable easier access to funding and incubators for young entrepreneurs. Skills gaps for young people in accessing and managing funds were also raised.

186. Discussions also focused on the need for more forums to showcase the impact of young people and for stakeholders to invest in their projects and initiatives. Types of forums were discussed, including the advantages and disadvantages of in-person and virtual settings.

(e) Station 5: Chair of the board of a multinational industrial corporation

187. This station focused on advising the Chair of the board of a multinational company to approve an ambitious climate change commitment based on science. Four different cases were discussed by different participants, including cases on an integrated energy company with strong legacy in oil and gas, a multinational cement company, an information technology company, and a heavy machinery manufacturing company.

188. Most participants argued that scope 3 emissions³¹ need to be part of emission reduction targets of multinational industrial corporations as they account for a large share of total emissions of corporations. For the case of the oil and gas industry, some participants argued that scope 3 emissions should not be part of corporate targets due to challenges of double counting across borders and given that corporations are not obliged to do so. In addition, some participants argued for those companies to set a target on phasing out their fossil fuel business, and invest in renewable energy technologies, other participants argued for investments in scaling up new abatement technologies such as on CCS. For cement companies, some participants suggested to focus commitments on investing in energy efficiency and renewable energy; diversifying into sustainable building materials; incubating in-house innovation centres or consultancies that focuses on the development of exit strategies from the core high-emission business; and increasing accountability by measuring baseline emissions and complying with environmental certifications and standards. For information technology companies the case was made for adopting sustainable procurement policies and incentives for suppliers to set science-based climate action targets. For heavy machinery companies, climate targets on circular business models, including on retrofitting and increased product durability, were proposed by some participants.

189. Most participants called for multinational industrial cooperation taking a broader commitment beyond science-based emissions reductions target, including just transition principles such as reskilling the company's workforce and contractors, benefits to the local community and poverty eradication, safeguarding biodiversity and ecosystems, and improving resilience of company operations.

190. For driving better accountability, some participants suggested to have baseline emissions measured by independent auditors and use both domestic and international transparency frameworks for reporting. Sustainable procurement policies with provisions for incentivizing suppliers maintaining science-based mitigation targets may be accountable measures for upstream supplier to the large companies.

(f) Station 6: Local farmer or other food producer

191. Participants discussed five scenarios that depicted the impacts of climate change on various agricultural production systems. These scenarios encompassed vineyards and wineries in a Mediterranean climate, rice cultivation in Asia, extensive livestock production, wheat producers facing increasing droughts, and fishing communities in coastal areas. For each scenario, participants were asked to elaborate on possible actions that farmers or other food producers can consider in addressing the challenges presented. The following key messages emerged across the different scenarios discussed:

(a) Context diversity: many participants emphasized the importance of adopting diverse agricultural practices that will depend on the different contexts, such as integrating

³¹ A company's GHG emissions can be classified into three scopes. Scope 1 emissions are direct emissions from company-owned and controlled resources. Scope 2 emissions are indirect emissions from the generation of purchased energy. Scope 3 emissions are all indirect emissions that are linked to the company's operations.

livestock, considering agroclimatic zones, and implementing agroecological principles. Solutions portfolios should aim to promote resilience and improve productivity;

(b) Socioeconomics: The socioeconomic aspects of agriculture, including such as farm size, capital sources and labour supply, should be considered when recommending actions that farmers can implement to respond to their specific climate change challenges. Additionally, addressing the financial constraints of farmers and ensuring fair compensation are crucial;

(c) Integrated approaches: Integrated agricultural systems that include several practices (e.g., crop rotation, crop diversification, multi-crop approach, agroforestry and silvo pastoral systems), and more collaborative solutions were highlighted as more effective approaches. They promote sustainable farming, improve soil health, and enhance resilience to climate change;

(d) Stakeholder engagement: The active involvement of stakeholders, such as farmers, indigenous communities, private sector, and public authorities, is vital in developing and implementing climate smart strategies. Promotion of farmer-to-farmer learning networks, and locally led adaptation in agriculture were emphasized.

192. The challenges and barriers identified in addressing climate change in agriculture include difficulties in finding fair compensation mechanisms and sharing climate risks across the supply chain. Limited availability of technical knowledge and specialized labour, inequitable or inflexible distribution of subsidies and support, and traditional insurance approaches that may not cover repeated harvest losses due to widespread climatic conditions are additional obstacles. Insufficient capital for implementing changes, slim profit margins for farmers, uncertainty about the effectiveness of new practices, and the unprecedented nature and rapid pace of changes further contribute to the challenges. The vulnerability of farmers' livelihoods also adds to the complexities faced in addressing climate change impacts in agriculture.

(g) **Station 13: How can we better understand how much NPS and international cooperative initiatives have contributed to collective progress on Paris Agreement goals and how can the accountability of pledges be promoted, and rigorous accounting be ensured?**

193. Discussions focused on the contribution of NPS and ICI to the collective progress on the Paris Agreement goals and the promotion of accountability of climate action pledges and plans. Following an introduction on existing standards, benchmarks, metrics frameworks, global agendas, and/or campaigns for rigorous accounting, analysis of progress, tracking and monitoring macro trends on implementation of NPS and ICI pledges for climate and nature actions and the associated co-benefits, several participants shared their opinions on the felt needs for NPS in developing countries to implement a rigorous accounting account, tracking NPS climate action in support of government-led MEL system and NDCs and NAP planning, and reporting. Finally, some participants provided insights on the independent evaluation, rating, and/or ranking of individual NPS actors or ICIs to improve robust accounting and demonstrate accountability in their progress reports. Key messages include:

(a) Many participants affirmed that there are existing standards, benchmarks, metrics, and frameworks such as Science Based Targets Initiative, Science Based Targets Network, Carbon Disclosure Project, the UN Secretary-General's High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities, the ETF, Task Force on Climate-related Financial Disclosures, Climate and Clean Air Coalition, International Sustainability Standards Board, the 2030 Breakthroughs and Sharm el-Sheikh Adaptation Agenda, campaigns such as Race to Zero and Race to Resilience and platforms such as the Global Climate Action Portal that can be used to assess and report climate action by NPS;

(b) Many participants recommended building on these existing standards, benchmarks, agendas, campaigns, and metric frameworks and improving existing platforms with functions that allow for reviews and independent feedback mechanisms. Some participants recommended that independent validation and or verification is necessary to enhance accountability through rigorous accounting and documenting of the status of actions and commitments that have been made through NPS initiatives. It was asserted that a pool of

approved independent verifiers be made available for validating NPS climate actions, pledges and plans;

(c) Several participants highlighted the need to develop a science-based methodological framework for aggregating and or translating impacts of climate actions by NPS to measure or track and scale their contribution to adaptation and or resilience building from the local, individual entity level to the national (MRV/ETF) and global levels (GST). To improve transparency, some participants recommended collaborative and inclusive approaches in data collection and regular disclosures on NPS climate actions and tracking of progress. The collaboration between the government and NPS, as demonstrated by CDP in Brazil and Colombia was cited as a good practice that can be scaled to build trust and synergies among the stakeholders;

(d) Most of the participants suggested that to ensure inclusivity and integration of social protection actions in resilience building, NPS, characterized by a vast range of diversity, needs customized engagements to achieve meaningful participation in implementing climate action. Further, mapping and categorization of the stakeholders into a multi-level recognition of roles was proposed to ensure that poverty traps are avoided and just transitions are entrenched in building resilience. The work by SME Climate Hub was presented as a good example of enhancing accountability by enabling SMEs to track their action using customized tools;

(e) Many participants urged for the customization and expansion of data collection themes to reflect NPS's diversity and building of capacity to implement tracking frameworks that can integrate the ETF requirements and other adaptation metrics that support nesting of NPS climate actions and impacts at the national MRV/ETF systems for tracking NDC/ NAP planning and reporting, and for the GST;

(f) Some participants pointed to the need for formalizing NPS data collection with full recognition of legal and property rights implications and triangulating benefits, including multi-level climate action and ownership by NPS. Further, the identification and recognition of all NPS constituency groups like the indigenous peoples, women, farmers, etc. was emphasized.

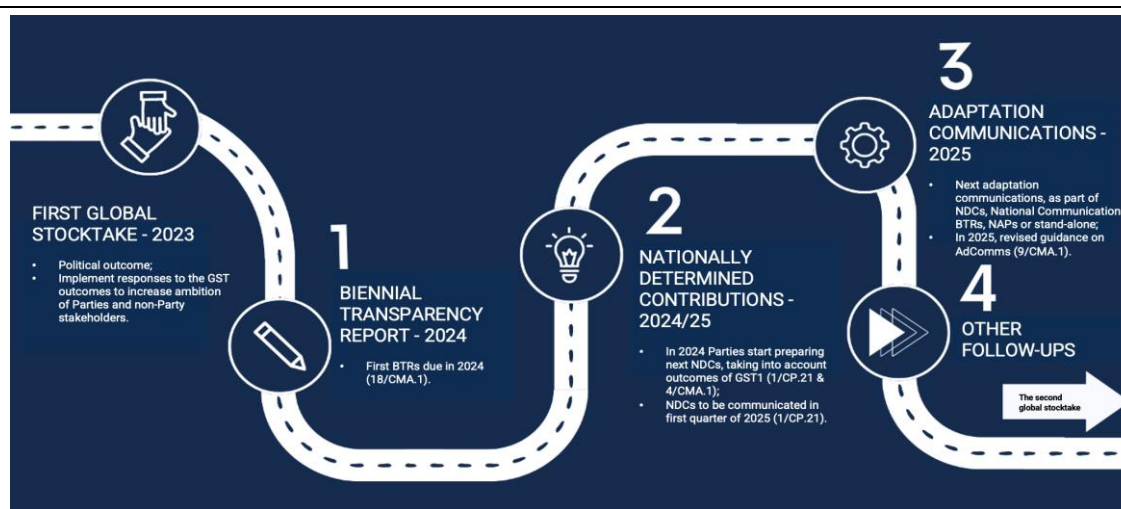
F. Closing plenary

194. The co-facilitators summarized the discussions held during TD1.3 and opened the floor for statements by participants from Parties and NPS.

195. Issues raised in statements included the urgency of limiting global temperature rise to 1.5°C, the importance of just transitions, equity and CBDR-RC at different levels, taking into account considerations between countries, generations, and within societies as well as the need for international cooperation and partnerships among Parties and NPS. Many participants emphasised urgent implementation of existing and more ambitious post-2030 commitments, including updated NDCs, to achieve rapid emissions reductions, keeping 1.5°C within reach and thereby avoiding more adverse impacts of climate change. Statements called for given special attention to adaptation and addressing loss and damage, with a focus on vulnerable countries and communities. Many participants highlighted the importance of MoI and support, and finance flows to support climate action. Reliable data and best available science were stressed to accurately assess climate impacts and guide informed decision-making. Statements also reflected the need for an effective and equitable climate dialogue as well as continued collaboration and partnerships to drive meaningful climate action and ensure a sustainable and resilient future for all.

196. Upon the conclusion of the interventions, the co-facilitators outlined some activities already agreed by Parties, in highlighting next steps in the GST process and beyond (see figure 7 below).

Figure 7
Next steps: activities already agreed by Parties



Source: Presentation by the co-facilitators at the TD1.3 closing plenary

Annex. Relevant information sources for TD1.3

Information source	Link
UNFCCC GST webpage	https://unfccc.int/topics/global-stocktake
TD1.3 webpage	https://unfccc.int/topics/global-stocktake/components-of-the-gst/technical-dialogues-of-the-first-global-stocktake/third-meeting-of-the-technical-dialogue-td13-of-the-first-global-stocktake
Call for inputs for the GST1 TD1.3	https://unfccc.int/sites/default/files/resource/message_to_parties_and%20observers_sb_chairs_call%20for%20inputs_first_gst.pdf
Guiding questions for the technical assessment component of GST1	https://unfccc.int/sites/default/files/resource/Draft%20GST1_TA%20Guiding%20Questions.pdf
GST information portal containing inputs	https://unfccc.int/topics/global-stocktake/information-portal
Information note on TD1.3 of GST1	https://unfccc.int/sites/default/files/resource/GST%20TD1.3%20Information%20Note_0205.pdf
Synthesis reports for the technical assessment by UNFCCC and constituted bodies and forums and other institutional arrangements serving the Paris Agreement	https://unfccc.int/topics/global-stocktake/events-and-inputs/unfccc-and-constituted-bodies-synthesis-reports-and-webinar-for-the-technical-assessment-component
Written statements by Parties and NPS	https://unfccc.int/topics/global-stocktake/components-of-the-gst/technical-dialogues-of-the-first-global-stocktake/third-meeting-of-the-technical-dialogue-td13-of-the-first-global-stocktake#Opening-plenary
Station notes for GST TD1.3 world café stations	https://unfccc.int/topics/global-stocktake/components-of-the-gst/technical-dialogues-of-the-first-global-stocktake/third-meeting-of-the-technical-dialogue-td13-of-the-first-global-stocktake
Global stocktake poster session at SB 58	https://unfccc.int/event/gst-td-poster-session