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Final Technical Submission to the UNFCCC

Ahead of the third Technical Dialogue of the Global Stocktake

Submitted by: Independent Global Stocktake (iGST) Consortium

Formally submitted by observer organization ClimateWorks Foundation on behalf of the iGST consortium.

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The iGST is a consortium of civil society actors working together to support a strong and transformative global stocktake (GST), through GST-focused research and capacity building. We're pleased to share a final technical input into the GST, based on research done by our members and partners (see full list of relevant research in Annex II).

Key Messages for the GST Technical Summary, by GST Theme and Region

We have focused this input on providing a high-level summary of key technical points that we note as observers to the GST process, and would recommend capturing in the final technical summary. These are organized by region (Latin America and the Caribbean, Southeast Asia, West Africa) and GST theme (adaptation, finance, and mitigation), plus cross-cutting messages provided on page 3.

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+ Cross-Cutting Messages:

- *Process Recommendations:* This document is focused on information for the technical assessment; please also see process recommendations in the joint February 15 submission to the UNFCCC, on the topic of the approach to the Consideration of Outputs phase of the GST.

- The GST is a critical moment in which to recognize the shortcomings of our collective climate approaches thus far, and more importantly, use this recognition as a springboard to **urgently move toward a step-change in climate action and ambition**. With this in mind, we anticipate that the technical outputs will necessarily *highlight the most transformative opportunities* for climate progress as identified through GST-TA.

- Implications of the GST vary by region, audience, and thematic area, making it all the more important to maintain an **inclusive stocktaking approach, valuing the knowledge and inputs of different stakeholders** including scientific knowledge alongside local, informal, or Indigenous knowledge. We also encourage **framing the GST outputs in such a way as to make them clear and usable by these different audiences,** with a strong and detailed technical annex that supports a more targeted CMA decision/declaration.

- Gaps in accountability and transparency, including tracking and enforcement mechanisms, have emerged as a clear theme in our research across multiple areas. The GST technical outputs can thus **highlight the need to establish new or strengthened accountability mechanisms to ensure follow-through** on the key priorities outlined in the final GST outputs, across adaptation, finance, and mitigation. These might include specific programs and disclosure requirements for non-state actors, particularly those interfacing with the UNFCCC, as well as creative thinking about how to support enhanced accountability at the national level.

- GST technical outputs should retain a **balanced, equity-rooted, approach, including sufficient attention to loss and damage** as well as response measures, and considering all work "in the light of equity" as mandated in 19/CMA.1. A comprehensive and equity-based approach to the GST will lend it a broad base of legitimacy among Parties and other stakeholders.

- iGST research reveals a clear need to support **building capacity for climate action at the national level,** across adaptation, mitigation, and cross-cutting areas such as transparency and accountability tracking. The technical summary report might acknowledge these needs and the extent to which lack of capacity has hindered climate progress to date.

- Given the pressing need for sectoral transformations, we support the **technical outputs using a sectoral approach to identify opportunities for enhanced action** in key sectors. As outlined in the IPCC AR6 WGIII report, "options are available now in every sector that can at least halve emissions by 2030" - we must act swiftly on these options.

- The technical summary will no doubt recognize that finance is a critical enabler of all other climate action. It must go further and **recognize that finance is not being provided at a scale commensurate with developing countries' needs**, and provide sufficient technical basis to **inform deliberations on a revised financial system**

architecture that enhances developing countries' access to finance and accelerates the climate-consistency of all finance flows.

- The technical outputs should recognize that achieving the goals of the Paris Agreement will **require an adequate adaptation response that enhances adaptive capacities and reduces vulnerabilities of lives and livelihoods**. Adaptation related outputs can further **provide synthesized information that will contribute to advancing the parallel work programme on the Global Goal on Adaptation,** assessing the progress made to-date to enhance the adequacy and effectiveness of adaptation and support provided for adaptation. Technical outputs will have to manage for GST1 while acknowledging the lack of agreed definitions for 'adequacy and effectiveness', still sharing the best data available given those constraints.

- In light of the mandate to conduct the GST using the "best available science," we underline the scientific consensus[1] that to meet the Paris Agreement goals **we must reduce GHG emissions by 43% by 2030 below 2019 levels and reach net zero around mid-century**. To do this, we must prioritize a **just transition**, **phase out fossil fuels before 2050** and **fossil fuel subsidies by 2025 (G7) or 2030 (all),** invest in **nature-based and renewable energy solutions** and save untested carbon capture technologies for the most difficult to abate sectors, not as a first line of defense.

- **Significant data and capacity gaps remain that stymie thorough assessment** of the thematic areas under the GST, which the technical outputs might highlight as gaps to address for future stocktaking. These include, but are not limited to:.[2]
    - *Adaptation:* Adaptation actions taken by the private sector
    - *Adaptation:* Clear definitions of the 'adequacy' and 'effectiveness' of adaptation, and agreement on ways to measure them.
    - *Finance:* Agreement on how to national alignment of public and private finance with the Paris Agreement goals
    - *Loss and Damage:* Data on non-economic losses and slow onset events to inform loss and damage conversations.
    - *Mitigation and cross-cutting:* Adequate attention to the underlying political and social determinants affecting progress on climate goals.
    - *Mitigation and cross-cutting:* Assessments of - and fixes for - national capacity for assessing climate action, including meeting the impending requirements of the Enhanced Transparency Framework.

- **Engagement of local and regional stakeholders** will be critical not only during the GST process, but in particular **in the 2024-2025 period to support the translation of GST outputs into concrete national policy.** The GST technical **outputs can be structured with clear sectoral and regional themes**, to support the straightforward translation for national and regional policymakers.

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[1] E.G., IEA (2021), Net Zero by 2050, IEA, Paris https://www.iea.org/reports/net-zero-by-2050 ; IPCC (2022). *Climate Change 2022: Mitigation of Climate Change. Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* https://www.ipcc.ch/report/ar6/wg3/ ; Boehm, S., et al. (2022). *State of Climate Action Report 2022* https://www.wri.org/research/state-climate-action-2022

[2] Research from the iGST provides some suggested ways forward for many of these. See more in specific thematic sections.

+ Regional Summary Messages:

Latin America and the Caribbean: Key Messages about LAC and the GST

Also see additional technical background in support of these messages in the annex.

1. **Finance:** Estimates of climate finance provided and mobilized from developed to developing countries show that Latin America and the Caribbean (LAC) has received the lowest proportion of international climate finance[3] (less than 20%). For LAC, besides scaling up global climate finance to address the economic, financial, technological, political, and social transformation, is essential to strengthen the collaboration of multilateral and regional banks in the region - in close coordination with central and national banks - and increase the availability of grants and concessional instruments to developing countries, to advance the implementation of national commitments, increase adaptation and resilience, and address loss and damage, in a context of greater transparency.

2. **Adaptation:** LAC houses some of the most climate vulnerable countries in the world, including Haiti, Bolivia, Bahamas[4], Colombia, and Mexico[5]. The region is particularly vulnerable to different types of extreme weather events[6]. Poverty and entrenched inequalities across the region further exacerbate the vulnerability of already marginalized populations, including women, youth, Indigenous Peoples. The GST could position adaptation and mitigation as a priority, by:
    - Prioritizing actions according to their potential for transformative adaptation, and avoiding maladaptation.
    - Encouraging the implementation of nature-based solutions, to reduce vulnerability and enhancing adaptive capacity, while ensuring social and economic co-benefits towards a Climate Resilient Development pathway.
    - Increasing the share of global climate finance for adaptation - currently amounting to only 34%.[7]
    - Ensuring participation and integrating local communities, traditional, indigenous and scientific knowledge into policy making.
    - Inviting the private sector, and MDBs, to engage in smart investments with climate change adaptation criteria.

[3]OECD (2022). Aggregate trends of Climate Finance Provided and Mobilised by Developed Countries in 2013-2020. Available at: https://www.oecd.org/climate-change/finance-usd-100-billion-goal
[4] GermanWatch (2021). *Global Climate Risk Index 2021*. Available at: https://www.germanwatch.org/sites/default/files/Global%20Climate%20Risk%20Index%202021_2.pdf
[5] Atwi, F. et al. (2022) *World Risk Report 2022: Focus Digitalization*. Bündnis Entwicklung Hilft & Ruhr Universität Bochum. Available at: https://reliefweb.int/report/world/worldriskreport-2022-focus-digitalization
[6] WMO (2022) *State of the Climate in Latin America and the Caribbean 2021.* World Meteorological Organization. Available at: https://library.wmo.int/doc_num.php?explnum_id=11270
[7] OECD, 2022

3. **Loss and damage:** Between 2008 and 2021, around 1,600 disasters have been reported in LAC, displacing more than 20.7m people[8]. The region would suffer economic losses of USD 100bn per year by 2050 due to climate change[9]. The GST could drive forward ambition on addressing loss and damage, by:
    - Developing standards and mechanisms for monitoring, analyzing and reporting on loss and damage, as a consequence of climate change
    - Expand data collection on non-economic losses and slow onset events, to better understand, avert, and address the impact of climate change locally.

4. **Just energy transition (JET):** LAC has the potential to reach the IEA's renewable energy target of Net Zero by 2050 before other parts of the world. However, LAC has continued to invest heavily in fossil fuel projects and infrastructure, increasing economic dependency on these resources. Strengthening JET in LAC is an opportunity to:
    - boost economic diversification;
    - increase potential in non-conventional energies and in the electrification of the transport sector;
    - align financial flows with the Paris Agreement, including addressing fossil fuel subsidies, fiscal reforms, and the promotion of savings and investments in clean energy;
    - transform energy and food production and consumption patterns that could result in 15 million more net jobs in LAC by 2030.

    Examples of energy transition toward low-carbon alternatives include Chile, Colombia, Costa Rica, Uruguay, and Nicaragua. Still, decision-making needs to place justice, equity, and human rights imperatives as a basis for national and sectoral regional planning; 68% of the attacks against land and environmental defenders recorded in the last ten years took place in LAC.[10] Moreover, more transparent and participatory mechanisms must be developed and implemented to include historically excluded and vulnerable groups such as indigenous people, women and children.

5. **NPS Participation in the GST**: Non-party stakeholders (NPS) are key to implementing the Paris Agreement goals. The capacity support to non-state actors must be:
    - **Purpose-driven:** The GST should be driven by the need to accelerate ambition and implementation of the Paris Rulebook.

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[8] IDMC (2022) "2021 Internal Displacement". Global Internal Displacement Database. Internal Displacement Monitoring Centre. Available at: https://www.internal-displacement.org/database/displacement-data

[9] Vergara, W. et al. (2012) "The Climate and Development Challenge for Latin America and the Caribbean: Options for Climate-Resilient, Low-Carbon Development". Inter-American Development Bank. Available at: https://www.ipcc.ch/apps/njlite/ar5wg2/njlite_download2.php?id=10049

[10] Global Witness (2021). *Last Line of Defense: The industries causing the climate crisis and attacks against land and environmental defenders.* Global Witness. Available at: https://www.globalwitness.org/en/campaigns/environmental-activists/last-line-defence/

- **Inclusive:** The GST should be inclusive, fostering participation and engagement from all Parties and non-Party stakeholders.
- **Coherent:** Non-Party stakeholders' contributions should support and feed into the processes of the Paris Agreement, aligning with the principles of the ETF.
- **Evidence-focused:** High-quality data should be at the center of the GST process.

6. The 'Additional Technical Background' section for LAC (below) includes independent assessments developed at regional and country levels, contributing to the technical and political discussion to carry out the fiscal, regulatory, institutional and public policy changes necessary to address the priorities and needs mentioned above.

Southeast Asia: Key Messages about Southeast Asia and the GST:

Also see: the full joint submission to TD1.3 by Institute for Global Environmental Strategies (IGES) and Institute for Climate and Sustainable Cities (ICSC).

In addition to the mandated goal of the GST to inform countries in updating and enhancing their global climate commitments, it is important that the GST helps to put pressure on countries to update their commitments. In doing so, the iGST Southeast Asia Hub (SEA Hub) presents a view of the regional perspective as summarized below:

- **Shared issues and actions within the region:** Region-specific stocktaking, which can be conducted by civil society and regional government stakeholders, provides opportunities to discuss key issues shared by communities and actors in the region, and learn from and possibly adopt these initiatives. These include both mitigation and adaptation-related issues, strategies, and initiatives, specifically in energy transition, forestry and land use, agriculture, disaster risk reduction, and ecosystem-based adaptation.

- **Translating to national contexts:** It will be important to **facilitate mechanisms to translate and localize the GST outputs** into regional and national contexts. This step can specify concrete action and support for countries in the region. Civil society organizations such as the iGST SEA Hub can support this translation.

- **Increase in ambition:** Beyond 2023, the GST should **make space for region-focused discussions on its implications for SEA with government and non-government stakeholders of the NDC development process**. This opportunity provides GST stakeholders the capacity to examine how to update NDCs based on the GST outputs. The iGST SEA Hub and other civil society organizations could facilitate these multi-stakeholder discussions.

- **Follow-up mechanisms, looking ahead to the second GST:** It is not too early to begin considering GST2. We recommend that GST1 **consider lessons learned, and further support follow-up mechanisms to take stock of regional progress and monitor indicators**. This mechanism assesses how the GST influences NDC implementation in the region. Looking ahead to the second GST, the SEA Hub and other non-Party stakeholders can engage with the development of such a mechanism.

Read more about the non-state actor engagement in the GST in Southeast Asia here:
Enhancing Non-State Actors' (NSAs) Engagement in the Global Stocktake of the Paris Agreement: Establishment of a Regional Hub in Southeast Asia

West Africa: Key Messages about West Africa and the GST

The West African Hub supports the African Group in that **a just transition to a climate resilient African continent requires an adequate adaptation response that enhances adaptive capacities and reduces vulnerabilities of lives and livelihoods**. This can be achieved by **shifting finance away from assessments and toolkits to project implementation** (and learnings from such implementation efforts) as this would help the realization of transformative adaptation in Africa.

The **adaptation outputs of the GST should include a synthesis report that would contribute to advancing the work programme on the Global Goal on Adaptation**. Such a synthesis report should aim to assess the progress made to-date to enhance the adequacy and effectiveness of adaptation and support provided for adaptation. This synthesis report should include progress made on the four elements of the Global Goal on Adaptation, which are: i. Planning; ii. Risk and Vulnerability; iii. Implementing of Actions; and iv. Finance for Adaptation.

At least seven West African countries have submitted their National Adaptation Plans (NAPs). They include Benin, Burkina Faso, Liberia, Niger, Sierra Leone, and Togo. These National Adaptation Plans have identified needs and priorities. The GST provides an opportune moment to indicate what countries have done to address the identified adaptation needs and adaptation priorities. Furthermore, the GST provides an opportunity for international partners to support the identified adaptation needs and priorities.

The GST **should be a mechanism that is characterized by providing a platform for local level actors to highlight their contribution to national adaptation efforts**. A key output of the GST should be a **framework that can help determine the extent to which national adaptation efforts are inclusive of adaptation actions by various social groups and actors**. Initial feedback from stakeholders of the West Africa iGST Hub points to a wide range of fragmented and small-scale adaptation actions that are taking place across the West African region. This situation highlights the need for targeted awareness raising, capacity-building, and collaboration with national level decision-makers on an on-going basis.
The extreme weather events that have taken place in West Africa in recent months point to transboundary climate risks and vulnerabilities. The coverage of GST outcomes should go beyond national level adaptation planning and implementation of adaptation processes. The GST outcomes should highlight the need for transboundary adaptation interventions that go beyond disaster risk reduction measures and encourage cross-boundary collaboration by decision makers and their local constituencies towards ensuring adequate adaptation responses.

The GST **should dedicate a robust assessment on the use and deployment of climate change adaptation technologies**. Most adaptation technologies provide excellent opportunities to co-create sustainable, adequate adaptation responses that can enhance livelihoods.

+ Thematic Summary Messages:

Adaptation Themes of the GST, Key Messages:

Also see additional technical background in support of these messages in the annex.

Based on findings from the iGST Adaptation Working Group work in the period 2020-2023, the following key points could be contributed to the submission to the GST:

1. The currently defined key **information sources listed for the GST for adaptation are unlikely to fully meet the four functions of the GST for adaptation and more research is urgently needed** to fill methodological and operational gaps[11].

2. In terms of the **private sector's contribution to GST, the main gap is a clear pathway for aggregating reported data to the global level**.[12] To address this gap, climate-related corporate disclosures could represent one promising source of input.

3. To conceptualize and operationalize the **adequacy and effectiveness of adaptation actions and support**, it is essential to define the assessment objectives, scope as well as goals and targets. Translating this into practice, there is a need to further conceptualize the three elements of GGA into measurable targets, either qualitatively or/and quantitatively: e.g., what is considered as adequate/effective for enhancing adaptive capacity, strengthening resilience and reducing vulnerability? And for operationalization, what is the best feasible pathway to carry out the three components/process of GST: e.g., shall GST take a top-down and/or bottom-up approach to carry out the information collection and preparation, technical assessment, and consideration of outputs?

4. Although multiple reporting channels on adaptation have been established under the UNFCCC, **each of these reporting frameworks follows a different time cycle, and the amount of fruitful information being reported may be limited for assessing the adequacy and effectiveness of adaptation and support**. The so-called Common Tabular Format (defined in decision 19/CP.18) could offer a feasible way to bring uniformity in the reporting periodicity and content and support the GST assessment of adaptation adequacy and effectiveness.[13]

[11] Christiansen, L., Olhoff, A., & Dale, T.W. (2020). *Understanding Adaptation in the Global Stocktake.* UNEP DTU Partnership. Available at: www.climateworks.org/wp-content/uploads/2020/05/Understanding-Adaptation-in-the-Global-Stocktake_iGST_UNEP-DTU.pdf

[12] Dale, T.W., Gao, J., Avashia, V.K., Konrad, S., & Garg, A. (2021). *Private Sector Adaptation Reporting as a Source of Input to the Global Stocktake.* UNEP DTU Partnership & Indian Institute of Management, Ahmedabad. Available at: www.climateworks.org/report/global-stocktake-private-sector-reporting/

[13] Gao. J., Christiansen. L. (eds.) (2023) "Perspectives: Adequacy and Effectiveness of Adaptation in the Global Stocktake." UNEP Copenhagen Climate Centre, Copenhagen. Available at: unepccc.org/wp-content/uploads/2023/02/perspectives-adequacy-and-effectiveness-of-adaptation-in-the-global-stocktake-web.pdf

Finance Themes of the GST, Key Messages:

See more in-depth discussion of these key messages in the full standalone submission of the Finance Working Group.

The GST outcomes will need to send signals on both quantitative and qualitative aspects of climate finance. Evidence is clear on the urgency to significantly scale-up climate finance to support developing countries' climate action, especially as the costs of inaction and the needs of countries will increase disproportionately over time. Going beyond the volume and definition of climate finance, the technical annex of the GST should focus on the quality of finance, for example, if climate finance is meeting developing countries' needs, if access modalities are appropriate, conducive financial instruments, and the impact on developing countries' debt sustainability and development progress. To accelerate collective ambition and realize conditional NDC targets, a spotlight in the technical annex on the extent to which climate finance reaches its intended beneficiaries directly and how much decision-making power local actors have over the use of resources is also critical. The political outcome of the first GST should seek to stimulate an ecosystem-approach to quantity and quality of climate finance access, facilitating climate finance mobilization and provision at a larger scale commensurate with developing countries' needs through direct investment, institutional and capacity-building, regional, national and local empowerment and the harmonization of funding modalities.

The GST outcomes on finance must be rooted in equity, taking into account the needs and special circumstances of developing countries as they vary according to geographical, ecological, and socio-economic context. As one of the two overarching issues of the GST, the principle of equity implies a recognition that the needs of countries, local communities and economies vary considerably with regards to adapting to climatic impacts and incurred loss and damages, as well as for decarbonization and a just transition that ambitiously reduces reliance on fossil fuels while shifting towards low greenhouse-gas and climate resilient development. The technical annex of the GST should recognise the differentiation of financing needs of geographic regions, ecologies and vulnerable groups, in particular women, children, youth, elderly and indigenous groups, as well as workers. The GST political outcome could further endorse the value of, and where appropriate existence of, processes for systematically collecting information, adequate vulnerability criteria and tracking finance needs for addressing loss and damage, discuss the fair share of provision of means of implementation and support, and elaborate on the appropriate role of grant-based and concessional public finance in climate and just transition finance.

The GST technical annex and high-level outcome must inform deliberations on a revised financial system architecture that enhances developing countries' access to finance and accelerates the climate-consistency of all finance flows. In anticipation of the GST becoming a global forum for collective assessment and evaluation, the repeating GST should provide an

ongoing learning function to synthesize the evidence-base and lay the groundwork for a revised architecture of the international financial system. To respond to the scale of the climate challenge and mobilize urgently needed resources, the technical annex of the GST must outline how such architecture will have to address inequities of developing countries in access to international public climate finance and private financial markets, and foster debt sustainability in a way that creates fiscal space for governments to implement climate action according to nationally-defined priorities. Convening Parties and stakeholders from civil society and the private sector, the technical report of the GST should outline best-practices in the financial sector with regards to participatory approaches for disadvantaged groups, elevate the role of just transition finance and foster convergence around practicable transparency frameworks for the consistency of finance flows, enabling ambitious decarbonization on a pathway towards low greenhouse-gas and climate resilient development. The outcomes of the GST should foster a global consensus through identifying the appropriate roles of the financial institutions and those that regulate and influence them, to foster climate action within their respective mandates.

Mitigation Themes of the GST, Key Messages:

Also see additional technical background in support of these messages in the annex.

The GST process has revealed continued data gaps, as well as gaps in data collection capacity, even in the relatively well-studied theme of climate change mitigation. Some are addressable for GST1, and others point to opportunities to build improved systems for GST2. Failing to address these challenges may undermine the efforts to create a robust and inclusive assessment of climate progress. These gaps include:

1. The current global stocktake process **lacks the means to track and evaluate societal and institutional aspects of climate action**. This, despite the fact that societal factors play a crucial role in driving change and determining the potential for further climate progress.

2. The structure of the GST thematic approach makes it **difficult to address cross-cutting issues, such as the intersections of mitigation, adaptation, finance, and equity,** as well as to **adequately represent the voices of those most vulnerable to climate impacts.** Isolating each thematic area may lead to undesired challenges (for example some of the mitigation methods such as renewable energy deployment may threaten ecosystems and hinder adaptation efforts).

3. The **Enhanced Transparency Framework (ETF)**, which will serve as the foundation of future GST cycles, **faces challenges in building the capacity needed to report transparent and accountable climate information in developing countries.** This will hinder the inclusion of robust information from the most vulnerable countries.

To fill the gaps, the iGST Mitigation Working Group has conducted research to address these challenges and improve the assessment of climate progress.[14] The studies provide the following key messages for both the first and second GST:

- We suggest the **GST and the country stakeholders should track and review societal information and progresses of climate mitigation, in addition to techno-economic information.** For the immediate term (the first GST), we recommend that the GST should acknowledge this gap in the official documents to raise awareness of the need to track societal and institutional efforts. In future GST cycles, it will be important to develop a framework to systematically evaluate societal progress. To do this requires formal discussions with country stakeholders to jointly determine the scale and scope, as well as the dimensions of societal progress that are most relevant and available.

[14] The Mitigation Working Group's research projects include: "Measuring political economy progress toward global warming goals," which outlines a framework to evaluate political economy progress in climate mitigation at a country level. The second project investigates capacity building to support developing countries' climate transparency, including via the Enhanced Transparency Framework (ETF), and provides a potential framework for indicators around capacity building.

- We suggest the GST adopt an inclusive and holistic approach for a more robust process by **focusing on cross-cutting issues across different thematic areas, such as capacity building, and by giving greater attention to perspectives of the most vulnerable countries.** We recommend the first GST emphasize the importance of the linkages between different thematic areas rather than independent issues, and identify common challenges. In addition, we recommend that the GST should better incorporate perspectives of the least developed and vulnerable countries on climate mitigation in its official documents, including their views on major carbon emitters and suggestions for climate solutions. For the longer term, it will be important to institutionalize those key elements prior to the second GST.

- We suggest that **the GST should pay immediate attention to the uneven capacity for information reporting under the ETF across Parties, and in a longer term, better support capacity building to enhance climate transparency for the second GST**. Information is the foundation of the GST, the quality of which can determine the GST outcomes. We recommend that the GST be a moment to step back and assess the capacities still needed for climate transparency, and address key questions including "What capacity challenges do reporting Parties face?" and "What support can the international community provide to meet ETF obligations?".

Equity Themes of the GST, Key Messages:

See more in-depth discussion of these key messages in the full needs-based assessment briefing from the iGST Equity Working Group.

In the interest of advancing toward a climate regime and global efforts that are "fit for purpose" with respect to achieving our commonly agreed climate goals, **we propose that the GST take a concrete, bottom-up, needs-based approach to collective assessment, one that holds the notions of adaptive capacity and mitigative capacity at its core.**

A needs-based approach within the UNFCCC regime and at the center of GST conversations would consist of the following elements.

(a) "Needs" refers to both the climate action needed to achieve the Paris Agreement goals, *and* the adaptive and mitigative capacity needed to realize such action, specifically for vulnerable and marginalized people for whom such capacity is especially lacking. A needs-based articulation is fully consistent with both Article 2 of the UNFCCC, which insists that climate stabilization be achieved at a level that would prevent dangerous climate change and be pursued in a manner that is consistent with sustainable development, and Article 2 of the Paris Agreement, in which the Parties similarly agreed to pursue climate action "in the context of sustainable development and efforts to eradicate poverty." Both, very notably, explicitly tie adequate climate action to achievements of sustainable development and poverty eradication.

(b) The GST is mandated to be conducted in light of equity, in which **equity considerations can be clarified by a needs-based assessment**. From an equity perspective, a needs-based approach prioritizes the protection of those vulnerable to climate change, highlights the specific contextual factors facing Parties, and recognizes that there will be differential requirements for support to build adaptive and mitigative capacity and thereby enable the depth and ambitiousness of climate action required to meet the objectives of the UNFCCC and the Paris Agreement.

(c) Any assessment of climate action from a needs-based approach would have to **recognize the scope of currently existing unmet development needs and growing adaptation needs, along with systemic gaps of capacity** to address these. Persistent mitigative and adaptive capacity gaps will prevent Parties from undertaking low-carbon and climate resilient development pathways that are essential for climate stabilization and for securing human well-being in a changing climate.

(d) Using a needs-based approach n**ecessitates an understanding of the context shaping the opportunities actors have to pursue low carbon and climate resilient development pathways**. The GST has a mandate to use the best available science. A central message emerging from numerous scientific bodies, including the IPCC, is that contextual factors – including political, social and material factors – are fundamental in creating or constraining opportunities to mitigate and adapt.

(e) **A needs-based approach is directly applicable within and beyond the GST.** Using a needs-based approach would necessarily require a *comprehensive* assessment of the adequacy of collective progress towards the implementation of the Paris Agreement across the key categories of mitigation, adaptation, loss and damage, and means of implementation as articulated below. Because needs are concrete, applying a needs-based lens in each of these components of climate action helps identify **what** adequate climate action implies, what adaptive and mitigative capacities are required, and **how** they might be achieved.

(f) While the GST is an essential component of the Paris Agreement's ratchet mechanism, **the equity challenges impeding global progress towards adequately addressing climate change and protecting vulnerable populations extend far beyond it**. A needs-based approach inevitably identifies actions by actors currently not formally within the UNFCCC, including non-state actors and international institutions, to promote adaptive and mitigative capacity and adequate climate action. Using a needs-based approach with the GST would send a necessary signal to domestic and international actors outside the UNFCCC whose efforts are essential if the objectives of the Convention are to be met.

(g) The **GST could set out core principles on needs-based assessments to guide Parties** in the enhancing and updating their NDCs and support, and where possible provide guidance to international cooperative initiatives and other non-state actors in supporting country actions and options.

+ Annex I: Additional Technical Background

The below section contains additional explanatory notes and references to underpin the summary messages shared above.

Adaptation: Supporting Technical Material

In reference to key message 1, the AWG analyzed the officially defined information sources for the 1st GST for adaptation and the extent to which they will be capable of informing the four functions of the GST for adaptation defined in the Paris Agreement. In relation to formal country submissions to UNFCCC (expected to be the primary data foundation of the GST), the paper found that while these will likely provide sufficient information for the GST functions related to 'recognition of national [adaptation] efforts', other functions related to 'enhancement of implementation', 'adequacy and effectiveness of adaptation and support', and 'review of progress on the global goal' are unlikely to be adequately informed, if sourcing is taken exclusively from national reports.

Full report available here:
https://www.climateworks.org/wp-content/uploads/2020/05/Understanding-Adaptation-in-the-Global-Stocktake_iGST_UNEP-DTU.pdf

In reference to key message 2, the state-led adaptation reporting processes may under-report or miss altogether a significant share of adaptation progress and efforts by the private sector. So far information related to adaptation being reported by the private sector is not being assessed with the purpose of evaluating the progress being made in adaptation by the private sector at the global level. The AWG report from 2021 explored the potential for assessing private sector adaptation using data being reported via different avenues and makes a number of recommendations.

Full report available here:
https://www.climateworks.org/wp-content/uploads/2021/12/Private-sector-adaptation-in-the-global-stockake.pdf

In reference to key message 3, as a core function of the GST process for adaptation, 'reviewing the adequacy and effectiveness of adaptation, and the support provided for adaptation' calls for a clear and shared understanding of the concepts of 'adequacy' and 'effectiveness', as well as a practice for operationalizing them in UNFCCC reporting. In a volume of assembled by the AWG in 2023 brought perspectives from a multitude of stakeholders, including academia, practitioners, and policy makers, around one fundamental question: '*How can the concepts of adequacy and effectiveness of adaptation actions be operationalized in assessments of global progress on adaptation?* The discussion was structured around the science-policy interface, where the scientific dimension focuses on *how to*

*conceptualize the A&E for being assessed under GST, w*hile the political dimension addresses *how to operationalize the assessment of A&E within the GST process.*

Full report available here:
https://unepccc.org/wp-content/uploads/2023/02/perspectives-adequacy-and-effectiveness-of-adaptation-in-the-global-stocktake-web.pdf

In reference to key message 4, Multiple reporting instruments on adaptation have been established for the UNFCCC, the Kyoto Protocol and the Paris Agreement. However, each of these reporting frameworks follows a different time cycle. This poses a problem with the availability of the latest data and status of adaptation planning, implementation and support assessments for the GST, causing concerns for the consistency and comparability of reporting periods. Lack of updated information on adaptation and its support impact adversely on the effective reviewing of their adequacy and effectiveness. Meanwhile, Common Tabular Format (CTF), allows uniform and regular (time-wise) quantitative tracking and assessment. To bring uniformity in the reporting periodicity and content, the CTF tables may be expanded to include common minimum adaptation action-related reporting indicators and measurements. Bringing in synergies with the monitoring and measuring of the Sustainable Development Goals (SDGs), parameters like vulnerable or at-risk populations based on demographic characteristics and socio-economic situations, access to basic amenities (clean water, housing conditions, etc.), extreme climatological events, related mortality, loss and damage (costs), and early warning systems may be included in the CTFs so that the Parties can report across sectors: water, biodiversity, agriculture, coastal ecosystems, public health, and so on. Such reporting would serve as a potential data source for GST.

Full discussion is available in the final paper included in the AWG perspectives publication from 2023:
https://unepccc.org/wp-content/uploads/2023/02/perspectives-adequacy-and-effectiveness-of-adaptation-in-the-global-stocktake-web.pdf

Mitigation: Supporting Technical Material

I. Developing enhanced measurements of climate mitigation progress beyond the standard 'techno-economic'

Research from the Mitigation Working Group (MWG) of the iGST, "Measuring political economy progress toward global warming goals" (full report available here) examines possibilities for characterizing the political economy dimensions of climate progress assessment. The goal of this paper is to highlight the potential for developing a more inclusive global stocktake. To that end, we outline **an agenda for future research to better characterize climate mitigation progress and challenges by incorporating indicators of social and institutional progress relevant to climate mitigation**. This study outlines political economy dimensions (national ambition, institutional arrangements, stakeholders and interests, policy effectiveness, and public opinions) and provides answers to key questions for each dimension: what does it represent, what might be relevant measurable indicators, how do these indicators relate to climate progress, and how can we measure them accurately. The paper identifies 16 indicators in these five dimensions and evaluates their measurability and data availability based on four criteria: clarity, current data availability, potential to improve data availability, and link to climate progress (Figure 1).

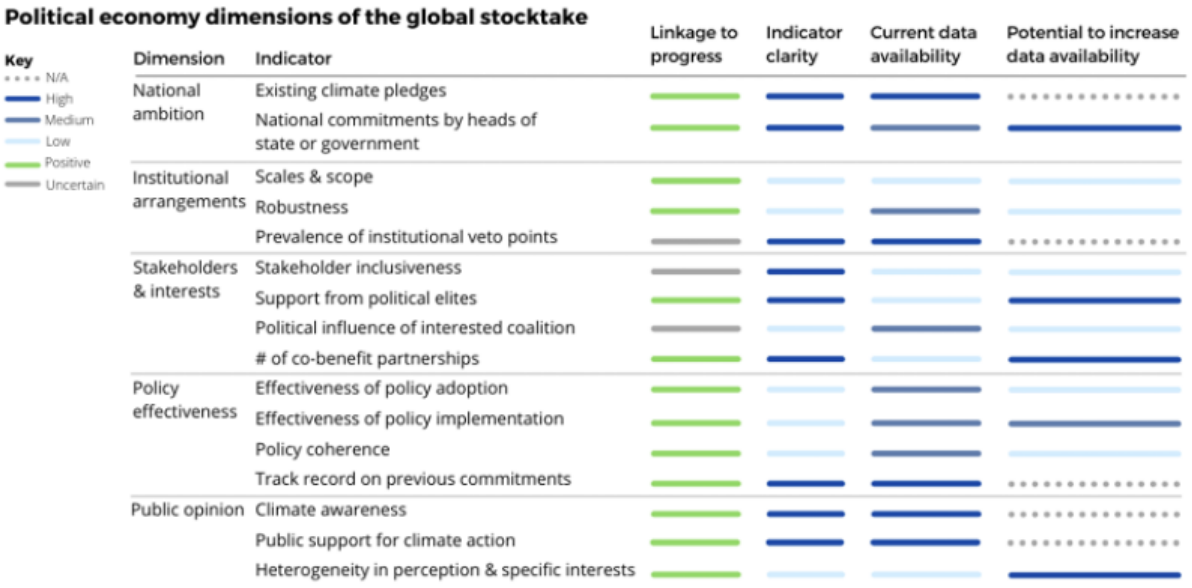

Figure 1. Summary of key findings. This figure presents a framework for identifying areas of current strength as well as needs for additional refinement of indicators, data, and analysis toward supporting increased climate action

II. Capacity building for climate transparency

Additional work from the MWG studies (briefing paper available here) on **capacity building as it relates to stocktaking efforts, with a focus on enhancing developing countries' climate transparency,** which has long been a cornerstone of monitoring climate progress. In particular, the Enhanced Transparency

Framework (ETF) under the Paris Agreement is an enabling mechanism to promote transparency and accountability in countries' climate efforts and serves as a foundation of the global stocktake. However, research finds that reporting capacities are quite varied, with developed countries having more capacity and resources compared to developing countries – which have lower levels of reporting capacity, as well as the burden of locating external financial support for climate transparency-related work. Those capacity building challenges are also highlighted by the most recent UNFCCC synthesis report (2022). The objective of this paper is to foster further research on measuring climate transparency capacity, which in turn is key to incentivizing the most impactful improvements to achieve the Paris goals, and thereby improve the efficacy of investments in climate transparency capacity building. Measuring climate transparency capacity will enhance communication of information domestically and internationally, leading to more efficient identification of needs and equitable allocation of support, improving domestic policies, and supporting the GST process.

This paper has developed a transparency capacity framework of measurements which allow us to define, develop, and evaluate indicators across time (Table 1). This framework identifies output quality as the primary dimension of transparency capacity of any evaluation effort. It can be measured by the number of high-quality reports a country can produce, and can be further categorized into two secondary dimensions: institutional and knowledge/skills. These dimensions include both social and structural attributes, with structural capacities being physical and non-physical infrastructure (budget, laws, curriculum, technology) and social capacities being actors (individuals, networks) using their abilities to complete tasks. Each of these dimensions includes a set of indicators which can be used to assess the capacity to report transparent and accountable climate information.

Table 1. Transparency capacity framework for measurement

Dimensions	**Examples of Capacity Attributes**	
	Structural Attributes	**Social Attributes**
Output Quality (Primary Dimension)	Quality principles, output template	Frequency, timeliness, caliber
Institutional (Secondary Dimension)	Budget, standards, agreements, regulations, laws, policy, procedures	Stakeholders, staff, efficiency, relational interaction
Knowledge and Skills (Secondary Dimension)	Curriculum, methods, information management software	Proficiency, software user efficiency

Latin America and the Caribbean: Supporting Technical Material

Additional background information to support the key regional messages from the Latin America and the Caribbean Hub.

Topic	Scope / Country	Relevance	Source
Just Energy Transition	G20 members: Argentina, Brazil, Mexico	The paper aims to give a broad overview of how Argentina, Brazil and Mexico are addressing climate change through the energy sector. The question of how just decision-making will be is the basis for this paper, as it analyzes and compares the energy transition process in each country.	Tornel C., et.al.,(2019) *Accelerating the energy transition in Latin America: How Argentina, Brazil, Mexico are addressing climate change and the energy sector.* Climate Transparency: https://www.climate-transparency.org/wp-content/uploads/2019/02/Climate-Transparency_Energy-Transition-Arg-Braz-Mex-Feb_2019.pdf
	Argentina, Brazil, Colombia, Mexico,	The document analyzes the contradictions of national energy and mining policies in Argentina, Brazil, Colombia and Mexico in the current climate emergency. The findings reveal how several narratives and trends bolster fossil fuels in the economic recovery instead of promoting a sustainable and socially just future.	Araujo, José, V., Arond L., (2021) *Pandemic recovery efforts undermine a just energy transition in Latin America.* Energy Policy Tracker- Stockholm Environment Institute: https://www.sei.org/wp-content/uploads/2021/11/vega araujo-et-al-2021.pdf
	Argentina, Brazil, Colombia, Mexico,	The document details the components that need to be considered for a just energy transition. It also emphasizes the links of just energy transition with human rights and identifies the actors responsible for accelerating the transition.	Calles Almeida, P., Vega Araújo, J., Arond, E., Muñoz Cabré, M, Guerrero, R., Valle Riestra, E., Mariño, H., Fonseca, R., & Tamborrel, A. (2023). Transición Energética en Latinoamérica: ¿Hacia Dónde Vamos? SEI Brief. Stockholm Environment Institute.

			https://doi.org/10.51414/sei2023.002
	Regional with case studies of Argentina, Grenada and Panama	This report reveals that an expansion of renewable energy in the power sector in Latin America and the Caribbean instead of continuing a fossil fuel path, including natural gas, would be by far the best choice. The region would perceive further benefits in terms of costs, jobs, and greenhouse gas emission reductions, and therefore to meet the goals of the Paris Agreement on Climate Change.	United Nations Environment Programme (2022). *Is Natural Gas a Good Investment for Latin America and the Caribbean? From Economic to Employment and Climate Impacts of the Power Sector*. https://wedocs.unep.org/20.500.11822/40923.
	Mexico	It points out the serious social, environmental, and human rights implications of the coal industry in Mexico's most important coal region, the state of Coahuila. It also outlines several key elements for designing a fair coal phase-out plan focusing on community, dialogue, and participation. It identifies the political, regulatory, and cultural barriers that Mexico needs to overcome.	Fonseca R., Gutiérrez M., Martínez N., (2021) *Energy Transition in Mexico: A fair coal-phase out for a Paris Compatible Escenario in Mexico*. Climate Transparency: https://www.climate-transparency.org/wp-content/uploads/2021/12/Energy-Transition-in-Mexico-A-fair-coal-phase-outMX.pdf
Finance	Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Trinidad y Tobago, Uruguay,	The Sustainable Finance Index aims to monitor national and international revenues and expenditures on climate change and sustainable development, as well as to identify those resources that could be hindering progress towards the transition to low-carbon and climate-resilient development, mainly from activities related to the extraction and production of fossil fuels and mining, which cause climate change.	Guzmán, S., Barbosa, O., Montalvo, V., Álvarez, F. (2022) *Sustainable Finance Index*. GFLAC. https://www.sustainablefinance4future.org/_files/ugd/32948d_ac13981ba67d448c98a571e1b3a8e3c2.pdf

	Venezuela.		
	Regional with case studies of Argentina, Brazil, Colombia and Mexico	The report reveals the role public and private banks are playing to advance or block the energy transition in the region. It presents an analysis of financial flows at the regional level with general trends from 2016 to 2021, as well as some initiatives and policies adopted. The country's case studies dig deeper to identify also the key players from the financial sector (public and private banks) who are at the top of the list of financiers of fossil fuels and clean energy.	Cárdenas, D., Trinidad, V., Barbosa, O., González, C., Puebla, M., Gutiérrez, A. (2022). *Unveiling the role of banks in the energy transition in Latin America: Regional overview of finance for clean energy versus fossil fuels*. GFLAC.
	Colombia Belize	A couple of case studies on the climate consistency of public and private financial flows in Colombia and Belize shows the significant challenges that the operationalization of Article 2.1c represents to national planning and economic diversification in developing countries.	Lopez Carbajal, A., Rojas Squella, X. and Watson, C. (2021) 'Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Colombia'. Transforma and ODI. Catzim, N. (2022) 'Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Belize'. San Francisco and London: Climate Works Foundation and ODI. Part of 'Climate-consistency of finance flows: iGST case study series' https://www.climateworks.org/independent-global-stocktake/finance-working-group/

Other: Links to Full Submissions on Equity, Finance, and Southeast Asia

Several of the groups with key messages featured above also made separate full-length submissions to the UNFCCC's global stocktake portal. See:

- **Equity:**
    - Negotiator Briefing: A Needs-based Approach to Assessment and Stocktaking
    - The Equity Landscape: A working paper of the Equity Working Group of the independent Global Stocktake (iGST)
- **Finance:** Finance in the GST technical annex and high-level outcome at COP28
- **Southeast Asia:** Joint submission to TD1.3 by Institute for Global Environmental Strategies (IGES) and Institute for Climate and Sustainable Cities (ICSC).

+ Annex II: iGST Research on the GST

The below section contains a list of research reports from iGST partners on addressing data and methodological questions in the Global Stocktake.

Relationship between the Global Stocktake and National Ambition and Implementation:

- Summary reflections on the below three reports from the iGST secretariat, available here.
- Charles, L., Thomas, S., Haynes, R., Qui, K. & Jones, D. (2021). *Using the Global Stocktake to Improve National Climate Policy Ambition and Implementation.* Climate Analytics. Available at: https://climateanalytics.org/publications/2021/using-the-global-stocktake-to-improve-national-climate-policy-ambition-and-implementation/
- Mantlana, B. & Naidoo, S. (2022). *Using the Global Stocktake to increase national climate policy ambition and improve implementation*. Council for Scientific and Industrial Research Smart Places Cluster. Available at: https://www.csir.co.za/csir-studies-countries'-climate-action-and-challenges
- Institute for Climate and Sustainable Cities. (2022). *Philippines Ratcheting Report: An Independent Assessment on the Philippines' National initiatives in line with the Paris Agreement's Ratcheting Mechanism*. ICSC. Available at: https://icsc.ngo/wp-content/uploads/2022/05/ICSC_iGST-Research_FINAL_JSM_06May2022.pdf

Adaptation and the GST:

- Christiansen, L., Olhoff, A., & Dale, T.W. (2020). *Understanding Adaptation in the Global Stocktake.* UNEP DTU Partnership. Available at: https://www.climateworks.org/wp-content/uploads/2020/05/Understanding-Adaptation-in-the-Global-Stocktake_iGST_UNEP-DTU.pdf
- Dale, T.W., Gao, J., Avashia, V.K., Konrad, S., & Garg, A. (2021). *Private Sector Adaptation Reporting as a Source of Input to the Global Stocktake.* UNEP DTU Partnership & Indian Institute of Management, Ahmedabad. Available at: https://www.climateworks.org/report/global-stocktake-private-sector-reporting/
- Gao. J., Christiansen. L. (eds.) (2023) "Perspectives: Adequacy and Effectiveness of Adaptation in the Global Stocktake." UNEP Copenhagen Climate Centre, Copenhagen. Available at: https://unepccc.org/project/the-adaptation-working-group-awg-of-the-independent-global-stocktake-igst/

Equity and the GST:

- Holz, C., Athanasiou, T., & Kartha, S. (2019). *Equity in the Global Stocktake and Independent Global Stocktake. Climate* Equity Reference Project. Available at: https://www.climateworks.org/wp-content/uploads/2020/05/Equity-in-the-Global-Stockate-and-Independent-Global-Stocktake_iGST_CERP.pdf

- iGST Equity Working Group. (2022). *The Equity Landscape.* Equity Working Group of the independent Global Stocktake. Available at: https://www.climateworks.org/report/equity-landscape-international-climate-governance/

- iGST Equity Working Group. (2022). *Negotiator Briefing: A Needs-based Approach to Assessment and Stocktaking.* Equity Working Group of the independent Global Stocktake. Available at: https://www.climateworks.org/wp-content/uploads/2022/11/iGST-COP27_Negotiator-Briefing_A-Needs-based-Approach-to-Assessment-and-Stocktaking_2022.pdf

Finance – Piloting Methods to Assess Progress Against Article 2.1c at a National Level:

- Summary blog with reflections from this case study series, available here, and summary webinar recording available here.

- Bingler, J. A., Kellenberger, S., Kolberg, S., & Watson, C. (2021). *Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Switzerland.* Part of the 'Climate-consistency of finance flows: iGST case study series.' Available at: https://www.climateworks.org/wp-content/uploads/2021/03/iGST_21c_Case_Study_Switzerland.pdf

- Catzim, N. (2022). *Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Belize.* Part of the 'Climate-consistency of finance flows: iGST case study series.' Available at: https://odi.org/en/publications/actions-supporting-article-21c-of-the-paris-agreement-in-belize/

- Halimanjaya, A., Ervita, K., & Rosalina, L. (2022). *Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Indonesia.* Part of the 'Climate-consistency of finance flows: iGST case study series.' Available at: https://odi.org/en/publications/the-consistency-of-finance-flows-with-the-paris-agreement-indonesia-case-study/

- Hoffmann, C., Karenfort, M., Micozzi, M. & Ryfisch, D. (2022). *Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Germany.* Part of the 'Climate-consistency of finance flows: iGST case study series.' Available at:

https://odi.org/en/publications/consistency-case-study-actions-supporting-article-21c-of-the-paris-agreement-in-germany/

- Lopez Carbajal, A, Rojas Squella, X. & Watson, C. (2021). *Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Colombia*. Part of the 'Climate-consistency of finance flows: iGST case study series.' Available at: https://www.climateworks.org/wp-content/uploads/2021/03/iGST_21c_Case_Study_Colombia.pdf

- Samo, J. et al. (2022). *Consistency case study: actions supporting Article 2.1c of the Paris Agreement in Rwanda.* Part of the 'Climate-consistency of finance flows: iGST case study series.' Available at: https://www.climateworks.org/wp-content/uploads/2022/02/iGST_21c_Case_Study_Rwanda.pdf

- *Forthcoming:* Additional case studies underway on SIDS countries.

Finance – Exploring Thorny Topics of Relevance to the GST:

- Watson, C., & Roberts, L. (2019). *Understanding Finance in the Global Stocktake.* Overseas Development Institute. Available at: https://www.climateworks.org/wp-content/uploads/2020/05/Understanding-Finance-in-the-Global-Stocktake_iGST_ODI.pdf

- Gençsü, I. & Watson, C. (2021). *Seven ways the Global Stocktake can accelerate the phase-out of fossil fuel finance.* Part of the 'Financing Climate Action: iGST Discussion Series'. Overseas Development Institute. Available at: https://www.climateworks.org/report/seven-ways-global-stocktake-fossil-fuel-financehttps://www.climateworks.org/report/seven-ways-global-stocktake-fossil-fuel-finance/

- Pandit Chhetri, R., Schaefer, L., & Watson, C. (2021) *Exploring loss and damage finance and its place in the Global Stocktake*. Part of the 'Financing Climate Action: iGST Discussion Series'. Available at: www.climateworks.org/wp-content/uploads/2021/03/Loss-and-Damage-Finance-iGST.pdf

- Watson, C., et al. (2021). *Seven ways the Global Stocktake can strengthen the post-2020 climate finance agenda.* Part of the 'Financing Climate Action: iGST Discussion Series'. Overseas Development Institute. Available at: https://www.climateworks.org/wp-content/uploads/2021/05/iGST-7Ways-2021-Book.pdf

- Mustapha, S. (2022). *Using the right mix of financial instruments to provide and mobilize climate finance: Lessons for the Global Stocktake*. Part of the 'Financing Climate Action: iGST Discussion Series'. Available at:

https://www.climateworks.org/report/using-the-right-mix-of-financial-instruments-to-provide-and-mobilize-climate-finance-lessons-for-the-gst/

Finance – Equity in Climate Finance and the GST:

- Pettinotti, L. et al (2022). *Surfacing perceptions of equity in the finance themes of the Global Stocktake.* Part of the 'Equity in Climate Finance: iGST Discussion Series'. Available at: https://www.climateworks.org/report/climate-finance-system-equity-barriers-global-stocktake/
- Rodriguez Osuna, A. (2022) *Accessing UNFCCC-linked multilateral climate funds: lived experiences.* Part of the 'Equity in Climate Finance: iGST Discussion Series'. Available at: https://www.climateworks.org/report/accessing-unfccc-linked-multilateral-climate-funds-lived-experiences/
- *Forthcoming:* Additional research on assessing the equity of actions in support of Article 2.1(c) alignment, aligning public and private finance flows with the Paris agreement goals.

Mitigation and the GST:

- Clarke, L., & Hultman, N. (2020). *Mitigation Information and the Independent Global Stocktake.* Center for Global Sustainability, School of Public Policy, University of Maryland. Available at: https://www.climateworks.org/wp-content/uploads/2020/05/Mitigation-Information-and-the-Independent-Global-Stocktake_iGST_UMD-Center-for-Global-Sustainability.pdf
- Zhu, M., Chaturvedi, V., Hultman, N., & Clarke, L. (2021). *Measuring Political Economy Progress Toward Global Warming Goals.* Working Paper. Center for Global Sustainability at the University of Maryland. Council on Energy, Environment and Water. Available at: https://www.climateworks.org/report/measuring-political-economy-progress-toward-global-warming-goals/
- White, M., Hanle, L., et al. (2023). *Capacity-Building and The Global Stocktake.* Available at: https://cgs.umd.edu/research-impact/publications/capacity-building-and-global-stocktake

GST Design and Process Research:

- **Synthesis Report:** Dagnet, Y., Leprince-Ringuet, N., Mendoza, J.M., & Thwaites, J. (2020). *A Vision for a Robust Global Stocktake*. World Resources Institute. Available at: https://www.climateworks.org/wp-content/uploads/2020/09/iGST_A-Vision-for-a-Robust-Global-Stocktake_FINAL-1.pdf

- Beuermann, C., Obergassel, W., & Wang-Helmreich, H. (2020). *Design Options for the Global Stocktake: Lessons from other review processes.* Wuppertal Institut. Available at: https://www.climateworks.org/wp-content/uploads/2020/05/Design-Options-for-the-Global-Stocktake_iGST_Wuppertal.pdf

- Höhne, N., Jeffery, L., Nilsson, A. & Fekete, H. (2019). *Guiding Questions for the Global Stocktake: What we know and what we don't.* NewClimate Institute. Available at: https://www.climateworks.org/wp-content/uploads/2020/05/Guiding-Questions-for-the-Global-Stocktake_iGST_NewClimate.pdf

- Obergassel, W., Hermwille, L., Siemons, A., & Förster, H. (2019). *Success Factors for the Global Stocktake under the Paris Agreement.* Wuppertal Institut. Available at: https://www.climateworks.org/wp-content/uploads/2020/05/Success-Factors-for-the-Global-Stocktake_iGST_Wuppertal.pdf

- iGST and Partners (2023). Joint Submission to the UNFCCC on the Approach to the Consideration of Outputs Phase of the first Global Stocktake. Available at: https://www4.unfccc.int/sites/SubmissionsStaging/Documents/202302151744---Joint%20Submission%20on%20GST%20Consideration%20of%20Outputs%20Phase_Feb%2015%202023.pdf

Regional Civil Society Stakeholders and the GST

Latin America and the Caribbean:

- Martínez, N., Pérez de la Mora, E., Villareal, J. (2021). *Analysis of Climate Civil Society in Latin America and the Caribbean Toward a Regional Initiative for the Independent Global Stocktake.* Iniciativa Climática de Mexico. Available at: (eng) https://www.climateworks.org/wp-content/uploads/2021/07/Analysis-of-Climate-Civil-Society-in-LAC-VF.pdf ;(esp) www.climateworks.org/wp-content/uploads/2021/07/Ana%CC%81lisis-de-la-sociedad-civil-clima%CC%81tica-en-Ame%CC%81rica-Latina-hacia-una-iniciativa-regional-para-el-BMI-150421.pdf

- Iniciativa Climática de Mexico. (2021) "Roadmap for climate civil society in Latin America and the Caribbean toward the Independent Global Stocktake (iGST)." Iniciativa Climática de Mexico. Available at: https://www.climateworks.org/wp-content/uploads/2021/08/iGST-LAC-Roadmap.pdf

- Valtierra Brestchenider, M., Tamborrel Signoret, A., Villarreal, J., Presbitero García, A. (2022). *Capacities of the Regional LAC Hub of the iGST. First mapping of information available based on the GST non-paper's guiding questions.* Iniciativa Climática de Mexico. Available at: (eng) https://www.climateworks.org/wp-content/uploads/2022/04/First-mapping-iGST-LAC-Hub-Non-Paper_2803.pdf ; (esp) https://www.climateworks.org/wp-content/uploads/2022/04/Primer-mapeo-LAC-Hub-NonPaper-2022_2803.pdf

Southeast Asia:

- Tsukui, A., Supnet, D., Matsuo, A. et al. (2023). *Enhancing Non-State Actors' (NSAs) Engagement in the Global Stocktake of the Paris Agreement: Establishment of a Regional Hub in Southeast Asia.* iGST Southeast Asia Regional Hub, Institute for Global Environmental Strategies and Institute for Climate and Sustainable Cities. Available at: https://www.iges.or.jp/en/pub/igst-sea-hub-summary-report- 20221220/en