United States GST Mitigation TD1.3 RT: Intervention Submission

- We emphasize the urgent need for deep and sustained emissions reductions.
- We also emphasize that Article 2.1a is the mitigation goal being assessed by the GST not Article 4.1.
- The TD1.2 summary report fails to capture the balance between the progress made since the Paris Agreement focusing instead on the gaps and incorporating equity in a way that is inconsistent with the Agreement.
- As we have heard throughout the technical dialogues, the Paris Agreement temperature goal has motivated action by Parties through NDCs, long-term strategies, sectoral initiatives, and other "Paris-aligned" effort as well as a wide range of other actions including, e.g., sub-national actors, companies, and financial institutions
- The International Energy Agency (IEA)'s estimates reflect the significance of the Paris Agreement and its implementation. While its pre-Paris business-as-usual scenario indicated warming of 3.5°C by 2100, it has estimated that progress since Paris has reduced expected business-as-usual warming to 2.5°C based on current policies, and that various pledges to date would, if fully implemented, limit warming to 1.7°C by 2100.
    - The 'if fully implemented' means a realistic trajectory towards achieving net zero pledges. This usually means peaking emissions by 2025 and always means substantially reducing emissions on the way to achieving net zero targets, not a long plateau in emissions and assuming action can be deferred to later.
- We have work to do- collective progress is still not on track. We have a significant ambition gap and implementation gap. Part of this ambition gap is that some Parties are taking on Paris-aligned, stretch NDC commitments while others are not.
- Moreover, some Parties domestic mitigation actions are not included in their NDC targets which reduces transparency on mitigation processes and emissions reductions. This further undermines trust in the process and the ability to keep 1.5 degrees within reach.
- Fortunately, we know what needs to be done and we have the opportunities and resources available to implement. Urgent efforts are required by all actors, particularly by those Parties from which emissions reductions are necessary to keep 1.5°C within reach to bridge the ambition and implementation gaps. Specifically, we know we need to reduce greenhouse gas emissions by 43% below 2019 levels by 2030, and 60% by 2035.
    - In order to have a greater than 50% chance of limiting warming to no more than 1.5°C, net greenhouse gas emissions need to fall to 59% below 2019 levels by 2035.
        - Global net CO_2 emissions need to be reduced by 63% from 2019 levels by 2035.
        - Global methane emissions need to be reduced by 41% from 2019 levels by 2035.

        - Global N_2O emissions need to be reduced by 17% from 2019 levels by 2035.
        - Global emissions of F-gases need to be reduced by 81% from 2019 levels by 2035
    - It is really important that the GST is clear on what targets need to be achieved to keep 1.5 within reach noting that net CO2 emissions vs net GHG emissions targets are not the same and can be confusing for decision makers. [It is worth pointing out that in the TD1.2 there is an error on when net zero GHG emissions need to be achieved: "Net zero GHG emissions needs to be achieved globally in the early 2050s in order to stabilize the global average temperature over the long term to 1.5 °C.". The statement is actually about CO2 and this factual error should be corrected.]
- The key messages from the GST need to reflect specific pillars for action, which have been reinforced throughout the technical assessment yet are not adequately in the current messages:
    - First, putting the global energy and industrial sectors on a pathway to net zero CO_2 emissions by mid-century, including by phasing out fossil fuels and rapidly increasing the deployment of zero emissions energy sources
        - Unfortunately, there is very little technical information in the TD1.2 summary about the opportunities associated with the cost reductions of solar and wind or pathways for clean energy as clearly outlined by the IPCC.
        - Related, we appreciate the points on the need to phase out high emissions technologies and systems, but we think there is a finer point in the key messages that emphasizes the importance of a global effort to accelerate the phase out of unabated fossil fuels so as to achieve net zero emissions in energy systems by 2050, in line with the trajectories required limit global average temperature to 1.5C above pre industrial levels.
        - The IPCC reported that, if historical operating patterns are maintained, and without additional abatement, estimated cumulative future CO2 emissions from existing fossil fuel infrastructure, the majority of which is in the power sector, would be 660 Gt of CO2. The IPCC also estimated that planned but not yet constructed fossil fuel would emit an additional 190 Gt of CO2 over their lifetime, equivalent to a 30% increase from the already large implied emissions of existing fossil fuel infrastructure.
        - This projected cumulative future CO2 emissions over the lifetime of existing and currently planned fossil fuel infrastructure without additional abatement exceed the total cumulative net CO2 emissions in pathways that limit warming to 1.5°C (>50%) with no or limited overshoot.

        - We need to accelerate the phase-out of unabated fossil fuels so as to achieve global net zero in energy systems by 2050 at the latest in line with the trajectories required to limit global average temperatures to 1.5°C above preindustrial levels, and call on others to join us in taking the same action phasing down unabated fossil fuel generation steadily and rapidly. The IPCC notes a need for a pathway involving a reduction of unabated coal use by 75% from 2019 levels by 2030 and 95% by 2050 (IPCC AR6 WG3 SPM Sec. C.3.2, Ch.3 section 3.5). For 2050 projections and in modeled pathways that limit warming to 1.5C (>50%) with no or limited overshoot, the global use of coal, oil and gas in 2050 is projected to decline with median values of about 95%, 60% and 45% respectively, compared to 2019 (C.3.2).
        - The IPCC suggests 1,000 GW of new wind and solar capacity installed annually by 2030 and 15,000 GW by 2035. The IEA's Net Zero Energy pathway for 1.5C also requires over 1,000 GW of new wind and solar annually by 2030.
    - Second, ending deforestation by 2030 and significantly reducing other GHG emissions from land use by addressing major drivers of deforestation and forest degradation in the tropics and enhancing sequestration in the AFOLU sector;
    - Third, cutting non-CO_2 GHGs, and other short lived climate pollutants - in particular reducing methane by 30% by 2030
        - In the TD1.2 summary, the need for and opportunities associated with addressing non-CO2 GHGs including methane is underemphasized. These reductions are central to keeping 1.5C within reach. There are passing mentions of methane in the report, but the focus on non-CO2 GHG needs to be much stronger especially given the clear need for the next round of NDCs to cover all sectors and all gasses.
    - The last pillar, which fits in if we deliver on the other three, is the need to scale up the innovation and deployment of carbon management technologies for dealing with hard to abate sectors.
        - The IEA notes "even in a low overshoot scenario, about 1.2 Gt of carbon capture and storage and atmospheric carbon dioxide removals will be required by 2030 to mitigate and compensate hard-to-abate residual emissions. against the roughly 0.3 Gt CO2 currently planned for 2030." But the IEA found that carbon management facilities operating today can only capture roughly 45 Mt.
- On international cooperation, there are also opportunities in both the aviation and shipping sectors which are particularly important for reducing global emissions which were not represented in the key messages:
    - For the aviation sector, Parties and the private sector will need to substantially scale up low-carbon technologies and sustainable aviation fuels.

    - The international shipping sector – acting primarily, but not exclusively, through the IMO – should phase out GHG emissions from international shipping to zero emissions no later than 2050.
- This scope of action required is significant, but we also know that climate action is not just about tradeoffs. These actions in and of themselves have multiple co-benefits and potential synergies with adaptation.
- There are also significantly more economic growth and job opportunities in pursuing a 1.5°C pathway. Lack of implementation of response measures, especially by major emitters, and/or building new unabated fossil fuel infrastructure contributes to global GHG emissions
    - This is especially important as we work to make progress on the goals of the Paris Agreement and other important mandates – including those made in Glasgow and reaffirmed in Sharm to phase down unabated coal power and phase out inefficient fossil fuel subsidies.
    - According to the IRENA Renewable Power Generation Costs in 2021 report, the new renewable capacity added in 2021, globally, could reduce electricity generation costs in 2022 by at least USD 55 billion.
    - According to IRENA, from 2010 to 2021 the global weighted average Levelized Cost of Energy of newly commissioned utility-scale solar PV declined by 88%, onshore wind fell by 68%, and offshore wind by 60% [IRENA RE Power Generation Costs in 2021].
    - According to the IEA NZE report and scenario, around 16 million jobs in clean energy end-uses will be added by 2030, 65% of which are high-skilled workers. Additionally, the report found that annual clean energy investment will more than triple by 2030, driving an average 0.4% per year increase in global GDP to 2030.
- Similarly we also know that just transition of the workforce and economic diversification and transformation, supported by strong domestic policies and investments, can help to facilitate the transition to a net-zero GHG economy and should be complementary policies to the implementation of response measures.
- The response measures forum and its KCI have undertaken significant work related to these issues, including through capacity building workshops and several publications, as well as by creating an online database of tools to help assess and analyze the impacts of the implementation of response measures.
    - Its work has mainstreamed the process of analyzing the impacts of mitigation policies throughout the UNFCCC process and has featured prominently in NDCs and other national climate plans.
- Finally, there is a characterization of equity that is not reflective of all of the views shared during the Technical Dialogue. In particular, efforts to keep 1.5°C within reach are essential for minimizing adverse impacts – especially in relation to vulnerable

populations. This means all parties putting forward their highest ambition. Equity cannot be an excuse to delay mitigation efforts.